

Regarding this key: This document was compiled using the resources available, which include the books cited on the last page, personal notes, and previously synthesized training materials. The purpose of this key is to provide volunteers with a suite of diagnostic vegetative characters for the scope of plants within chronosequence plots EV1, SB1, SB2 and SB3. It is intended to be implemented in the field so as to reduce the need for field checks. That said, there are undoubtedly improvements that can and *should* be made to this key for volunteer posterity. To begin with, some dichotomies neatly extract to families while others do not, and some liberties were taken with the initial dichotomies (A/AA through D/DD) in order to make the key functional. One such example is the magnoliid vs. eudicot dichotomy- if floral characters were given, the user could choose with greater ease of mind. But where is the fun in that? Besides, floral characters are only mentioned (and helpful) when those flowers are likely to be seen (e.g. *GONZAGALUNIA SPICATA*). We also had to omit XYLSCH and CHIDOM due to a lack of available information. When possible, we encourage volunteers to obtain leaf samples in order to maximize this key's efficacy. The key is located in the beginning with page references to full species descriptions (listed alphabetically by family in the index). Because of the technical nature of this document, we also included a glossary of obscure terms and abbreviations as well as a works cited page in the back.

Good luck!  
-TIMPER & NADQUI

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El Verde Chronosequence Volunteers, Fall 2012

### CHRONOSEQUENCE ARTIFICIAL KEY TO SPECIES

**A-LVS W/ ABAXIAL SORI**

CYATHEA ARBOREA (14)

**AA-PLANTS W/O SORI, BUT PRODUCING FLOWERS**

**B- LVS CLUSTERED @ ENDS OF UNBRANCHED STEM, PARALLEL VENATION, LVS LARGE CLASPING FRONDS (ARECACEAE)**

**C-LF SHEATHS SPLITTING OPEN**

PRESTOEIA MONTANA (12)

**CC-LF SHEATHS FORMING COLUMN**

ROYSTONEA BORINQUENA (12)

**BB-STEMS BRANCHED, LF VENATION RETICULATE**

**C-LVS OPPOSITE**

**D-LVS COMPOUND**

**E-LFLTS LARGE (25-45CM), FRAGRANT WHEN CRUSHED; TRUNK SMOOTH WITH RIDGED NODES FROM LF SCARS; SOMETIMES WITH PROP RTS**

SCHEFFLERA MOROTOTONI (12)

**EE-LFLTS SMALLER (UP TO 15CM), NOT FRAGRANT; W/O PROP RTS**

**F-LVS PALMATE, LEPIDOTE**

TABEBUIA HETEROPHYLLA (13)

**FF-LVS ODD-PINNATE, SLIGHT PUBESCENCE ALONG MIDRIB**

SPATHODEA CAMPANULATA (12)

**DD-LVS SIMPLE**

**E-STRONGLY ARCUATE-PLINERVATE 2° VENATION, W/ PERP. CONNECTING VEINS (MELASTOMATACEAE)**

**F-LF MARGINS CILIATE, CRENATE, DENTATE, SERRATE OR UNDULATE**

**G-ADULT LVS +/- GLABROUS, SOMETIMES W/ RUSTY-BROWN HAIRS ON ABAXIAL VEINS**

**H-LVS STRONGLY 3-NERVED/PLINERVATE; LF MARGINS DENTATE TO UNDULATE**

**I-PETIOLES WINGED**

MICONIA PRASINA (16)

**I-PETIOLES NOT WINGED; NODES W/ RAISED RING-SCAR**

MICONIA AFFINIS (16)

- HH**-LVS 3-5 NERVED; LF MARGINS CILIATE/BRISTLY  
**I**-TUFT OF HAIRS @ JUNCTION OF LF BL & PETIOLE, PETIOLE 1-6CM; LVS  
 USUALLY OBLANCEOLATE/WIDEST DISTALLY  
MICONIA RACEMOSA (16)
- I**-NO TUFT OF HAIRS; PETIOLES SHORTER (1-2.5CM); LVS USUALLY  
 LANCEOLATE  
MICONIA LAEVIGATA (16)
- GG**-ADULT LVS & PETIOLES HAIRY &/OR SCALY ESP. ALONG VEINS, LF BASES  
 CORDATE  
**H**- PETIOLES VERY SHORT TO SESSILE  
MICONIA IMPETIOLARIS (16)
- HH**-PETIOLES LONGER (3.5-12.5 CM)  
MICONIA SERRULATA (16)
- FF**-LF MARGINS ENTIRE  
**G**-LVS DENSELY COVERED W/ APPRESSED STELLATE HAIRS, MOSTLY 5-  
 NERVED  
**H**-TRUNK DISTINCTLY 4-COLUMNAR; LVS +/- OBLANCEOLATE-OBLONG,  
 ABAXIAL INDUMENT BRONZE, PINKISH HUE ON YNG LVS & STEMS  
MICONIA MIRABILIS (16)
- H**-TRUNK SLIGHTLY QUADRANGULAR, INDUMENT WHITISH IN OLDER LVS,  
 BRONZE IN YNG; LVS LANCEOLATE, BASES CORDATE WHEN YNG  
TETRAZYGIA URBANII (17)
- GG**-, LVS W/O DENSE ABAXIALLY APPRESSED HAIRS, OFTEN STRONGLY 3-  
 NERVED (4<sup>TH</sup> & 5<sup>TH</sup> VEINS MARGINAL, FAIRLY FAINT)  
**H**-LVS W/ AD- & ABAXIALLY SIMPLE PUBESCENCE, ALSO ON PETIOLES  
HENRIETTA FASCICULARIS (16)
- HH**-LVS, PETIOLES & YOUNG SHOOTS SCALY, +/- GLABROUS @ MATURITY  
**I**-LF TIP ACCUMINATE, BASE SUB-CORDATE, LVS 8-20 CM  
MICONIA TETANDRA (16)
- I**-LF TIP ROUND TO NOTCHED, SOMETIMES BROADLY ACCUMINATE,  
 MARGIN SLIGHTLY REVOLUTE  
CALYCOGONIUM SQUAMULOSUM (15)
- EE**-VENATION +/- PINNATE, NOT AS ABOVE  
**F**-PLANTS W/ LATEX-NOT ALWAYS APPARENT IN **RHEPOR**, 2° VENATION OF LVS +/-  
 // (CLUSIACEAE)  
**G**-BARK SMOOTH, WHITE TO LIGHT GRAY W/ SCATTERED CORKY CANKERS  
**H**-LVS OBOVATE, OVATE TO TRIANGULAR, THICK CORIACEOUS, UNDERSIDE  
 BRUISING W/ FINGERNAIL, OBSCURE 2° VENATION, MARGINS SLIGHTLY  
 REVOLUTE  
CLUSIA ROSEA (13)
- HH**-LVS ELLIPTIC TO OBLONG, 2° VENATION VISIBLE, VERY FINE, TWIGS +/-  
 QUADRANGULAR  
CALOPHYLLUM ANTILLANUM (13)
- GG**-BARK RATHER SMOOTH TO SLIGHTLY FISSURED, W/O CANKERS  
**H**-LF TIPS SPINE-LIKE; BRANCHES DROOPING  
RHEEDIA PORTORICENSIS (13)
- HH**-LF TIP NOTCHED TO ROUNDED, LVS GLAND-DOTTED  
MAMEA AMERICANA (14)
- FF**-PLANTS NOT CONTAINING LATEX  
**G**-LVS GLANDULAR/PELLUCID-DOTTED OR PUNCTATE, USUALLY FRAGRANT  
 WHEN CRUSHED  
**H**-LVS LARGE (11-95CM LONG), PETIOLE SHORT W/ DECURRENT LF BLADE  
 APPEARING SLIGHTLY WINGED, YNG LVS BRONZE COLORED; BARK LIGHT  
 BROWN & SOFT  
TECTONA GRANDIS (23)
- HH**-LVS SMALLER (NEVER OVER 20CM), NERVES ANASTOMOSING TO FORM  
 SUB-MARGINAL NERVE

- I-LVS** NARROWLY LANCEOLATE, 9-20CM, GLABROUS, VENATION ABAXIALLY APPARENT; CROWN SPARSE W/ LVS, TWIGS QUADRANGULAR,  
SYZGIUM JAMBOS (19)
- II-LVS** ELLIPTIC TO OVATE, IF LANCEOLATE YNG TWIGS PUBERULENT  
**J-BARK** REDDISH, PAPERY & PEELING; RELATIVELY LONG ACCUMINATE TIP, YNG LVS SOMETIMES PINKISH  
MYRCIA LEPTOCLADA (18)
- JJ-BARK** MAY BE FLAKY OR PEELING, BUT NOT PAPERY & REDDISH  
**K-LVS** 2.5-7.5 CM, ADAXIALLY SHINY, ABAXIALLY DENSELY RETICULATE-VEINED  
MYRCIA SPLENDENS (19)
- KK-LVS** 5-18CM  
**L-LF TIPS** W/ ACCUMINATE APEX OR DRIP-TIP, YNG LVS PUBESCENT, SOMETIMES PUBESCENT @ MATURITY  
**M-STEMS & PETIOLES** DENSELY BROWN PUBESCENT, MARGINS SLIGHTLY REVOLUTE, OFTEN COVERED W/ SOOTY MOLD  
MYRCIA DEFLEXA (18)
- MM-LVS** W/ SPARSE PUBESCENCE, NOT BROWN, NOR HAVING REVOLUTE MARGINS  
**N-LVS** RIGID, ABAXIAL VENATION PROMINULOUS; INNER BARK REDDISH  
MYRCIA FALLAX (18)
- NN-LVS** ADAXIALLY SHINIER & DARKER GREEN; INNER BARK BROWN  
EUGENIA DOMINGENSIS (18)
- LL-LF TIPS** ROUND, LVS +/- ELLIPTIC & GLABROUS  
**M-LVS** THICK, 2° VENATION SLIGHTLY OBSCURED, NOT RAISED; INNER BARK PINKISH  
EUGENIA STAHLII (18)
- MM-VENATION** ABAXIALLY PROMINULOUS, 2° VEINS DIVERGING @ 90° TO MIDRIB; INNER BARK BROWN  
CALYPTRANTHES LUQUILENSIS (18)
- GG-LVS** LACKING GLANDULAR DOTS & FRAGRANCE  
**H-PUBESCENCE** OF DOLABRIFORM HAIRS; LVS +/- CLUSTERED @ ENDS OF CANDELABRA-LIKE BRANCHES; INNER BARK PINKISH OR PINKISH STRIATE (MALPIGHIACEAE)  
**I-LVS** LANCEOLATE, ~3-4X LONG AS WIDE, 4-15CM LONG, MARGIN CRENULATE-WAVY, ACCUMINATE LF TIP, CHANNELLED PETIOLE  
BYRSONIMA SPICATA (15)
- II-LVS** ELLIPTIC, ~2X LONG AS WIDE, 3-8 CM, MARGINS SLIGHTLY REVOLUTE, LF TIP ROUND TO CLEFT, ABAXIALLY GRAY TOMENTOSE  
BYRSONIMA WADSWORTHII (15)
- HH-SIMPLE** HAIRS; "NORMAL" BRANCHING PATTERN  
**I-SINUATE-SERRATE** LF MARGIN, ESP WHEN YOUNG, CADUCOUS STIPULE LEAVING CIRCUMNODAL SCAR; NODES SLIGHTLY SWOLLEN  
CASSIPOUREA GUIANENSIS (20)
- II-LVS** ENTIRE, NOT AS ABOVE (RUBIACEAE)  
**J-STIPULES** INTRAPETIOLAR  
**K-LF APEX** ROUND, MARGIN SLIGHTLY REVOLUTE, YNG PETIOLE AND STEMS W/ APPRESSED HAIRS  
GUETTARDA VALENZUELA (20)
- KK-PLANTS** +/- GLABROUS, LF TIP ACCUMINATE  
**L-BRANCHES** HORIZONTAL, DISTICHOUS; STIPULES DELTOID & ARISTATE; LVS APPEARING PUSHED FORWARD ON STEM  
FARAMEA OCCIDENTALIS (20)
- LL-STIPULE** APEX ROUNDED; BRANCHES NOT DISTINCTLY

DISTICHOUS

**M**-STIPULES LRG, TRIANGULAR & KEELED, PETIOLES VERY SHORT TO NEARLY SESSILE, +/- WINGED

PSYCHOTRIA GRANDIS (21)

**MM**-STIPULES DIVIDED OR LOBED NEARLY TO BASE

**N**-LVS 7-22CM, 13-20 PAIRS OF 2° VEINS, STEMS QUADRANGULAR, ABAXIAL VEINS SLIGHTLY HAIRY

PSYCHOTRIA BERTEROANA (21)

**NN**-LVS SMALLER (5-15CM), ~10 PAIRS OF 2° VEINS; USUALLY HAVE VIBRANT BLUE FRUITS

PSYCHOTRIA BRACHIATA (21)

**JJ**-STIPULES INTRAPETIOLAR, ABSCISING TO LEAVE RIDGED/SCARRED NODE

**K**-LVS GLABROUS

**L**-LVS W/ SUB-CORDATE LF BASE, PETIOLE 5MM; INNER BARK REDDISH, LVS DARK GREEN

ANTIRHEA OBTUSIFOLIA (20)

**LL**-LF BASES USUALLY ACUTE/TAPERED; INNER BARK GREENISH TO BROWN

**M**-LF MARGINS PURPLE, 5-6 PRONOUNCED 2° VEINS, LVS ELLIPTIC-OBLONG

CHIONE VENOSA (20)

**MM**-LVS OBLANCEOLATE, MIDRIB SOMETIMES YELLOWISH; OLD STEMS GNARLED & KNOBBY

IXORA FERREA (20)

**KK**-LVS W/ PUBESCENCE, EVEN IF SPARSE

**L**-TREE W/ LRG OBOVATE LVS, 11-28CM LONG, PETIOLES SHORT; STIPULES TRIANGULAR & ACCUMINATE, UP TO 5CM

GENIPA AMERICANA (21)

**LL**-PLANTS USUALLY SUB-CANOPY TREES OR SHRUBS; LVS DISTINCTLY PETIOLATE

**M**-STIPULES CONNATE; LVS W/ DOMATIA IN AXILS OF MIDRIB & 2° VEINS; FLRS RED & YELLOW

PALICOUREA RIPARIA (21)

**MM**-STIPULES TRIANGULAR & SUBULATE-TIPPED; LVS W/ CILIATE MARGINS, BLADE TYPICALLY HAIRY; WHITE FLRS IN LONG SKINNY RACEME

GONZALAGUNIA HIRSUTA (20)

**CC**-LVS ALTERNATE

**D**-LVS PINNATELY COMPOUND, LOBED OR DEEPLY CLEFT

**E**-LVS LOBED, PALMATE OR PINNATIFID

**F**-LATEX PRESENT, LVS DISSECTED NEARLY TO VENATION, LF TIPS ACCUMINATE

ARTOCARPUS ALTILIS (18)

**FF**-LVS PELTATE, PALMATELY LOBED; LVS CLUSTERED @ ENDS OF BRANCHES; TRUNK LIGHT IN COLOR, SMOOTH WITH CIRCUMNODAL LF SCARS, PROP RTS SOMETIMES PRESENT

CECROPIA SCHREBERIANA (22)

**EE**-LVS PINNATELY COMPOUND

**F**-LVS EVENLY PINNATE

**G**-LVS W/ GLANDS ON RACHIS, LVS GENERALLY FEW (2-3 PAIRS), HORIZONTALLY LENTICELED BARK

**H**-PETIOLE WINGED

INGA VERA (15)

**HH**-PETIOLE NOT WINGED BUT CHanneled

INGA LAURINA (14)

**GG-LVS** EGLANDULAR, USUALLY >3 LFLT PAIRS  
**H-LFLTS** LARGER (7.5-22CM), USUALLY ACCUMINATE APEX  
**I-LVS** W/ SUNKEN VENATION, DARKER GREEN  
**JJ-OBSCURELY** RETICULATE VEINED; USUALLY LARGE TREE;  
MARGINS WAVY, "DIVING DUCK" BUD @ END OF LFLT; LVS SHINIER  
THAT **GUAGLA**  
GUAREA GUIDONIA (17)

**JJ-RETICULATELY** VEINED ON BOTH SIDES; SMALL TREE, W/ LRG  
LF SCARS ON TRUNK; LVS MATTE- NOT SHINY

GUAREA GLABRA (17)

**II-LVS** LIGHT GREEN, EVIDENTLY ASYMMETRICAL; MATURE TREES;  
W/ LRG PYRIFORM FRUIT CAPSULES.

SWIETENIA MACROPHYLLA (17)

**HH-LFLTS** SMALLER (3-8CM), ELLIPTIC, LFLT TIPS COMMONLY  
ROUNDED, NEVER STRONGLY ACCUMINATE

**I-LVS** MINUTELY ABAXIALLY PUBESCENT, 6-15 LFLT PAIRS; BARK  
PALE

SENNA SIAMEA (15)

**II-LFLTS** 2-8, SOMETIMES SUB-OPPOSITE, PUNCTATE-DOTTED, YNG  
TWIG PUBESCENCE REDDISH-BROWN; BARK BLACK/BROWN, INNER  
BARK REDDISH

MATAYBA DOMINGENSIS (22)

**FF-LVS** ODDLY PINNATE

**G-LFLTS** OPPOSITE

**H-LVS** SWEET-FRAGRANT

**I-LVS** W/ ABRUPTLY ACCUMINATE DRIP-TIP; BARK SMOOTH TO  
FISSURED

**J-TERMINAL** LFLT LARGER THAN REST, LFLTS LANCEOLATE-  
ELLIPTIC

TETRAGASTRIS BALSAMIFERA (13)

**JJ-LVS** SAME SIZE, OVATE-ELLIPTICAL; TRUNKS OFTEN EXUDING  
RESIN

DACRYODES EXCELSA (13)

**II-TREE** WITH LARGE CONICAL PRICKLES; LVS UNEQUAL @ BASE,  
PELLUCID-DOTTED, LF TIPS NOT SHARPLY ACCUMINATE

ZANTHOXYLUM MARTINICENSE (21)

**HH-LVS** NOT FRAGRANT

**I-LFLTS** ASYMMETRICAL, TERMINAL LFLT LARGEST, PROMINENT  
ABAXIAL VENATION, PETIOLE CHANNELED

TRICHILLA PALLIDA (17)

**II- LFLTS** SYMMETRICAL, NOT DISTALLY ENLARGED, VEINS  
OBSCURE, PETIOLE W/ STIPULES; INNER BARK ACRID

ANDIRA INERMIS (14)

**GG-LFLTS** SUB-OPPOSITE TO ALTERNATE

**H-LFLTS** DROOPING, W/ RED JUICE WHEN CRUSHED; LRG THIN  
BUTTRESSES; TREE OF RIPARIAN AREAS

PTEROCARPUS OFFICINALIS (15)

**HH-LFLTS** NOT DROOPING, NO RED JUICE; TRUNK NOT BUTTRESSED

**I- LVS** CLUSTERED @ ENDS OF BRANCHES, LFLTS SPINNULOSE,  
BASES CORDATE, INCREASING IN SIZE DISTALLY ON RACHIS, 11-31  
LFLTS/LF: \*\*CAUTION ALLERGENIC\*\*

COMOCLADIA GLABRA (12)

**II-LF** BASES ENTIRE, MARGINS SLIGHTLY REVOLUTE, LF BASE  
ACUTE, 5-10 LFLTS

SIMAROUBA TULAE (22)

**DD-LVS SIMPLE**

**E-LATEX PRESENT**

**F-CIRCUMNODAL STIPULE SCARS; BRANCHES EXHIBIT MONOPODIAL GROWTH  
G-PETIOLE <0.5CM; STEMS ZIG-ZAGGED; LVS OBLONG; 2°S CURVING NEAR  
MARGIN**

PSEUDOLMEDIA SPURIA (18)

**GG-PETIOLE >0.5CM; STEMS THICK & WOODY; LVS ELLIPTIC TO OVAL TO  
OBOVATE; 2°S // TO MARGIN**

**H- 2°S IN 4-16 OBVIOUS PAIRS; PETIOLE UP TO 7CM OR +/- ¼ LENGTH OF  
BLADE; BARK SLIGHTLY FISSURED**

FICUS TRIGONATA (17)

**HH-2°S NUMEROUS & TIGHTLY PACKED; PETIOLE 5-10MM OR +/- ¼  
LENGTH OF BLADE; BARK LIGHT & SMOOTH**

FICUS AMERICANA (17)

**FF-LF SCARS ROUND, RAISED; BRANCHES EXHIBIT SYMPODIAL GROWTH  
(SAPOTACEAE)**

**G-LVS CLUSTERED @ BRANCH ENDS IN PSEUDOWHORLS, OBLANCEOLATE  
TO OBOVATE, LVS LARGE- UP TO 30CM @ MATURITY**

MANILKARA BIDENTATA (22)

**GG-LVS ALONG BRANCHES, +/- ELLIPTIC, LVS SMALL- ≤15CM @ MATURITY**

**H-YOUNG STEMS, BUDS, & ABAXIAL LF SURFACE COVERED IN  
SERICEOUS BRONZE HAIRS; LVS ELLIPTIC TO OBOVATE W/ ABRUPTLY  
ACCUMINATE APEX**

MICROPHOLIS GUYANENSIS (22)

**HH-LVS GLABRATE W/ SLIGHTLY REVOLUTE MARGIN, OVAL ELLIPTIC W/  
ROUNDED APEX (SOMETIMES NOTCHED)**

MICROPHOLIS GARCINIFOLIA (22)

**EE-LATEX ABSENT**

**F-MAGNOLIIDS (EXHIBIT "PRIMITIVE" CHARACTERS- PIPERACEAE, LAURACEAE,  
ANONACEAE)**

**G-SWOLLEN NODES; INEQUILATERAL/OBLIQUE LF BASE (PIPERACEAE)**

**H-3 OR 5 PLINERVATE VEINS- APPEARING MELOSTOMATIC; WARTY  
LENTICELS PRESENT**

PIPER BLATTARUM (19)

**HH-2° VEINS ALT, BECOMING ARCUATE TOWARDS APEX; LENTICELS  
ABSENT**

**I-LVS W/OUT PELLUCID DOTS, ABAXIAL SURFACE SCABROUS**

PIPER HISPIDUM (19)

**II-LVS W/ PELLUCID DOTS, ABAXIAL SURFACE GLABROUS**

**J-PETIOLE ROUND; YOUNG TWIGS, BUDS & ABAXIAL MIDRIB  
PUBESCENT**

PIPER GLABRESCENS (19)

**JJ-PETIOLE DEEPLY CHANNELED; TWIGS & STEMS PALE-GREEN  
DOTTED, SMOOTH**

PIPER JACQUEMONTIANUM (19)

**GG-NODES NOT SWOLLEN**

**H-DISTICHOUS; LVS W/ ACUMINATE BASE, NARROWLY ELLIPTIC, +/- //  
MARGINS**

GUATTERIA CARIBAEA (12)

**HH-NON-DISTICHOUS (LAURACEAE)**

**I-LVS SPATULATE, MARGIN REVOLUTE**

OCOTEA SPATHULATA (15)

**II-LVS OBLONG LANCEOLATE/ELLIPTIC, +/- FLAT BLADE W/ CURVED  
PETIOLES**

**J-LVS W/ RAISED, TRANSLUCENT GALLS, OBOVATE ELLIPTIC W/ BLUNT APEX, ABAXIAL MIDVEIN GLABROUS; PETIOLE SLIGHTLY CURVED**

OCOTEA LEUCOXYLON (15)

**JJ-LVS W/OUT GALLS, OBLONG ELLIPTIC W/ ACUTE APEX, 2° VENATION INCONSPICUOUS; PETIOLE "S"-SHAPED**

OCOTEA SINTENSIS (15)

**FF-EUDICOTS (NON-MAGNOLIIDS)**

**G-LF MARGINS CILIATE, DENTATE/SERRATE, OR UNDULATE**

**H-LF MARGINS CILIATE BUT NOT UNDULATE**

HIRTELLA RUGOSA (13)

**HH-LF MARGINS DENTATE/SERRATE &/OR UNDULATE BUT NOT CILIATE**

**I-SINGLE MIDVEIN @ BASE; PETIOLE <1/4 LENGTH OF BLADE**

**J- 2° VEINS ALT (SALICACEAE)**

**K-TWIGS +/- LINEAR, PUBESCENT; LF MARGINS FINELY SCALLOPED OR SERRULATE; LF BASE ASYMMETRICAL**

**L- BARK MOTTLED, SMOOTH GRAY-BROWN; RUSTY PUBESCENCE ON MARGINS, PETIOLES & ABAXIAL LF SURFACE; MARGINS SERRULATE**

CASEARIA ARBOREA (21)

**LL- BARK GRAYISH W/ WARTY LENTICELS; TWIGS PUBESCENT BUT LVS +/- GLABROUS; MARGINS SCALLOPED TO SERRATE**

CASEARIA SYLVESTRIS (21)

**KK-TWIGS +/- ZIG-ZAGGED, GLABROUS; LF MARGINS SCALLOPED TO SERRATE OR SERRULATE; LF BASE EVEN**

**L-LVS BROADLY ELLIPTIC; MARGINS SCALLOPED TO SERRATE; LACKING PELLUCID DOTS; DOMATIA @ VEIN JUNCTIONS**

HOMALIUM RACEMOSUM (21)

**LL-LVS NEARLY LINEAR- OBLONG ELLIPTIC; MARGINS SERRULATE; LVS W/ PELLUCID DOTS & LINES; YELLOW LENTICELS**

LAETIA PROCERA (22)

**JJ- 2° VEINS OPP (SOMETIMES SUBOPP)**

**K-LVS CLUSTERED @ BRANCH ENDS; PULVINUS PRESENT; YOUNG LVS SERRATE; LF BASE ACUTE**

MELIOSMA HERBERTII (21)

**KK-LVS ALONG BRANCHES; PULVINUS ABSENT; MARGINS SLIGHTLY CRENATE & UNDULATE; LF BASE +/- INEQUILATERAL**

DRYPETES GLAUCA (14)

**II-TRINERVATE BASE; PETIOLE +/- 1/3 TO 1/2 LENGTH OF BLADE (EUPHORBIACEAE)**

**J- PLINERVES ONLY UP TO 1/2 LENGTH OF BLADE; LVS NARROWLY ELLIPTIC TO OBOVATE ELLIPTIC**

ALCHORNEOPSIS FLORIBUNDA (14)

**JJ- PLINERVES SUBOPP & ARCUATE TOWARDS APEX; LVS WIDE ELLIPTIC TO OVATE**

ALCHORNEA LATIFOLIA (14)

**GG-LF MARGINS ENTIRE**

**H-BRANCHES IN 3'S (BORAGINACEAE)**

**I-VENATION RAISED ON BOTH LF SURFACES; PUBESCENCE DIMINISHING WITH AGE**

CORDIA BORINQUENSIS (13)

II-VEINS SLIGHTLY ADAXIALLY SUNKEN; TWIGS & PETIOLES COVERED W/ BROWN TOMENTUM; LVS OFTEN INSECT-EATEN  
CORDIA SULCATA (13)

HH- BRANCHES ALT OR OPP

I-OCHREA PRESENT (POLYGONACEAE)

J-ENTIRE PLANT GLABROUS; LVS SMALL, ELLIPTIC

COCCOLOBA PYRIFOLIA (19)

JJ-BRANCHES & OCHREA PUBERULENT, LVS LG. ROUNDED ELLIPTIC TO OVATE, DRIED LEAVES CONSPICUOUSLY RAISED RETICULATE

COCCOLOBA SWARTZII (19)

II-OCHREA ABSENT

J-LVS CLUSTERED @ BRANCH ENDS IN PSEUDOWHORLS

K-APEX CURLED UNDER; TWIGS BRANCHING EQUALLY INTO 2'S OR 3'S; BARK THIN, GRAY, SLIGHTLY FISSURED

DAPHNOPSIS PHILIPPIANA (22)

KK-LF BLADES FLAT; BRANCHES EXHIBIT SYMPODIAL GROWTH; BARK DARK & +/- SMOOTH

BUCHENAVIA TETRAPHYLLA (14)

JJ-LVS +/- ALONG BRANCH

K-PETIOLE UP TO 2X LENGTH OF BLADE

DENDROPANAX ARBOREUS (12)

KK-PETIOLE  $\leq 1/3$  LENGTH OF BLADE

L-LF BLADE +/- FLAT

M-ADAXIAL SURFACE W/ SUNKEN VEINS, GLOSSY & FLEXIBLE; ABAXIAL SURFACE W/ BLACK DOTS

TERNSTROEMIA LUQUILLENSIS (19)

MM-ADAXIAL VEINS FLUSH W/ SURFACE, MATTE & CORIACEOUS; ABAXIAL SURFACE W/OUT BLACK DOTS & INCONSPICUOUS 2° VENATION

ILEX SIDEROXYLOIDES (12)

LL-MARGIN SLIGHTLY REVOLUTE

M-PETIOLE SHORT, ROUND, STOUT ( $\leq 4$ MM); 2° VENATION FINE, ANASTOMOSING; GLANDULAR DOTS ABSENT

CYRILLA RACEMIFLORA (14)

MM-PETIOLE FLATTENED, +/- WINGED, NEARLY SESSILE; 2° VENATION INCONSPICUOUS; LVS W/ GLANDULAR DOTS

ARDISIA GLAUCIFLORA (18)



## GLOSSARY

// PARALLEL

+/- MORE OR LESS

2° (2°S) SECONDARY (SECONDARIES)

**ACCUMINATE** COMING TO A POINT

**ADVENTITIOUS** USUALLY REFERRING TO ROOTS THAT ORIGINATE FROM THE STEM, BRANCHES, OR LEAVES INSTEAD OF ROOT MERISTEMS

**ALT** ALTERNATE

**ANASTOMOSE** THE FUSION OF TWO SIMILAR STRUCTURES

**ARCUATE** SIGNIFICANTLY ARCHING, MOSTLY REFERRING TO MELASTOMATAACEAE

**ARISTATE** BRISTLE-LIKE APPENDAGE

**AXIL** ANGLE FORMED BY A PRIMARY STRUCTURE AND A LATERALLY BRANCHING STRUCTURE

**B/T** BETWEEN

**BL** BLADE

**CADUCOUS** EASILY DETACHED AND SHED AT AN EARLY AGE

**CAPILLARY VASCULAR TERMINATIONS** VEINS ENDING WITH A GLAND OR TRANSLUCENT STRUCTURE

**CILIATE** FRINGED WITH FINE HAIRS

**CIRCUMNODAL** FORMING A RING AROUND THE STEM AT THE NODE

**CORDATE** HEART-SHAPED

**CORIACEOUS** LEATHERY IN TEXTURE

**CRENATE** ROUND-TOOTHED OR SCALLOPED EDGE

**CUNNEATE** WEDGE-SHAPED

**DELTOID** TRIANGULAR-SHAPED

**DENTATE** TOOTHED

**DENTICULATE** FINELY TOOTHED

**DISTAL** AWAY FROM THE POINT OF ATTACHMENT

**DISTICHOUS** PLANAR IN APPEARANCE, USUALLY REFERRING TO LEAVES IN 2 OPPOSING ROWS ON A BRANCH

**DOLABRIFORM** PICK-SHAPED

**DOMATIA** CHAMBER(S) CREATED BY PLANT TISSUE FOR USE IN SYMBIOTIC RELATIONSHIPS WITH INSECTS (MOSTLY HAIRS IN THE CONTEXT OF THIS KEY)

**ESP.** ESPECIALLY

**FLRS** FLOWERS

**GLABRATE** BECOMING HAIRLESS AT MATURITY

**GLABROUS** HAIRLESS, SMOOTH

**HISPIDULOUS** ROUGHLY HAIRY

**HIRSUTE** COURSE, STIFF HAIRS

**INDUMENT** HAIRS (COLLECTIVELY)

**INTRAPETIOLAR** BETWEEN OPPOSITE PETIOLES

**LEPIDOTE** SCALY

**LF** LEAF

**LFLTS** LEAFLETS

**LVS** LEAVES

**MONOPODIAL** "NORMAL" BRANCHING IN WHICH THE TERMINAL BUD OF A BRANCH MAINTAINS DOMINANCE OVER LATERAL BUDS

**MTS** MOUNTAINS

**OPP** OPPOSITE

**PELLUCID** TRANSLUCENT, SEE-THROUGH

**PELTATE** SHIELD-LIKE, ATTACHING AT THE CENTER OF THE DISK

**PERP.** PERPENDICULAR

**PETIOLULE** PETIOLE OF A LEAFLET

**PINNATIFID** LEAVES WITH PINNATE LOBES

**PLINERVATE** LATERAL NERVES SIMILAR TO THE MIDRIB ARISING NEAR THE INSERTION OF THE PETIOLE

**PROMINULOUS** SLIGHTLY RAISED

**PROXIMAL** TOWARDS THE POINT OF ATTACHMENT

**PSUEDOWHORL** USUALLY REFERRING TO LEAVES CLUSTERED AT BRANCH ENDS AS A RESULT OF SHORTENED INTERNODES

**PUBERULENT** SOFT, DOWNY HAIRS

**PUSTULATE** HAVING PUSTULES

**PYRIFORM** PEAR-SHAPED

**RETICULATE** RESEMBLING A NETWORK

**REVOLUTE** CURVING UNDER

**SERRATE** CURVED TEETH

**SERICEOUS** COVERED IN FINE SILKY HAIRS

**SERRULATE** MINUTE CURVED TEETH

**SESSILE** STALK-LESS; ATTACHED DIRECTLY AT THE BASE

**SPINNULOSE** SPINE-LIKE

**STELLATE** STAR-LIKE; RADIAL

**SUBULATE** AWL-LIKE

**SUBCORDATE** NEARLY OR APPROXIMATELY HEART-SHAPED

**SYMPODIAL** WHEN THE APICAL BUD OF A BRANCH TERMINATES AND A LATERAL BUD ASSUMES DOMINANCE. THIS RESULTS IN A "SWOOPING" AND/OR CANDELABRA-LIKE BRANCHING APPEARANCE.

**TERETE** SMOOTHLY CYLINDRICAL OR SLIGHTLY TAPERING

**TOMENTUM** TYPICALLY REFERRING TO THE HAIRS ON A STRUCTURE, INDUMENT

**UNDULATE** LF MARGIN THAT CURVES UP AND DOWN; WAVY

**W/** WITH

**YNG** YOUNG

**INDEX**  
(BY FAMILY)

**ARECACEAE**

**PRESTOEIA MONTANTA (PREMON)** LVS ALT, COMPOUND, APPEARING PLANAR, LFLTS LINEAR, ERECT, VENATION PARALLEL, PETIOLE >1M, MARGIN PINNATIFID; BARK SMOOTH GRAY WITH PROMINENT CIRCUMFLUENT LEAF SCARS; FINGER-LIKE ROOTS; TRUNK SWOLLEN AT BASE; SMALL TO MEDIUM TREE; MID TO HIGH ELEVATIONS IN WET/MOIST DISTRICTS & NEAR STREAMS

**ROYSTONEA BORINQUENA (ROYBOR)** LVS ALT, COMPOUND, VERY LARGE PINNATE FRONDS WITH LINEAR LEAFLETS THAT HANG FROM RACHIS, VENATION PARALLEL, LVS 2.5-4M, MARGIN PINNATIFID, PETIOLE SHORT (1-3M), ENCIRCLING STEM TO FORM COLUMN; BARK SMOOTH, GRAY-BROWN TO CINNAMON-BROWN; TRUNK BULGING NEAR TOP; TREE UP TO 20 M- LARGER THAN **PREMON**; USUALLY FOUND BELOW 300 M IN WET AREAS

**ANACARDIACEAE**

**COMOCLADIA GLABRA (COMGLA)** **\*\*ALLERGENIC\*\*** LVS ALT, COMPOUND, W/ PURPLISH TINGE, CROWDED @ TOP OF TRUNK, LFLTS ENLARGE DISTALLY, 11-31 LFLTS OPP TO SUB-OPP, 4-10CM, OBLONG-OVATE/LANCEOLATE, CORDATE @ BASE, LATERAL VEINS ABAXIALLY PROMINENT, LVS 30-45CM, MARGINS SPINNULOSE-DENTATE, PULVINUS PRESENT; SMALL TREE

**ANNONACEAE**

**GUATTERIA CARIBAEA (GUTCAR)** LVS ALT, SIMPLE, FRAGRANT, NARROWLY ELLIPTIC, FINELY ACCUMINATE TIP, MIDRIB MINUTELY PUSTULATE, RETICULATE-VEINED, 8-22CM, MARGINS SLIGHTLY REVOLUTE, SCATTERED APPRESSED ABAXIAL HAIRS; PETIOLE 4-7MM; BRANCHES ALMOST HORIZONTAL, TWIGS WITH ZIG-ZAG SHAPE, FINELY BROWN-HAIRY; BARK BROWN, ROUGH, INNER BARK PINK WITH SPICY TASTE; TREE; MOIST FORESTS, LOWER TO UPPER ELEVATIONS

**AQUIFOLIACEAE**

**ILEX SIDEROXYLOIDES (ILESID)** LVS ALT, SIMPLE, OBOVATE TO CUNNEATE/OBOVATE, SOMETIMES WITH STIFF LF APEX, 2-8CM, MARGINS ENTIRE, PETIOLE 6-10MM, CORIACEOUS, BRITTLE, WITH GRANULAR APPEARANCE, INCONSPICUOUS VENATION; TWIGS GLABROUS; BARK GRAY, SMOOTH TO SLIGHTLY ROUGH; SMALL TO MEDIUM SIZED TREE; LUQUILLO MTS

**ARALIACEAE**

**DENDROPANAX ARBOREUS (DENARB)** LVS ALT, SIMPLE, OVATE TO ELLIPTIC, JUVENILE LVS 3-4 LOBED, LOOSELY RETICULATE, 2° VEINS BRANCH @ REGULAR INTERVALS, 6-20CM, MARGINS ENTIRE, PETIOLE UP TO 40CM; BARK LIGHT GRAY, SMOOTH TO WARTY WITH LENTICELS; MEDIUM TREE; MID TO UPPER ELEVATIONS

**SCHEFFLERA MOROTOTONI (SCHMOR)** LVS OPP, COMPOUND, PALMATELY COMPOUND; 10-12 LFLTS, OBLONG LANCEOLATE, ACCUMINATE APEX, BASE SUBCORDATE TO ROUND, 25-45CM, MARGIN ENTIRE, CLUSTERED @ ENDS OF BRANCHES, SOMETIMES W/ REDDISH, SILKY ABAXIAL HAIRS, PETIOLE 20-40CM, PETIOLULES 6.5-11.5CM; BARK SMOOTH, GRAY; MEDIUM TREE; LOWER TO MIDDLE ELEVATIONS, COMMONLY SUPERFICIALLY ROOTED VIA PROPS

**BIGNONIACEAE**

**SPATHODEA CAMPANULATA (SPACAM)** LVS OPP, COMPOUND 30-60CM, ODD-PINNATE, 11-17 LFLTS, ELLIPTIC, LFLTS 7-12CM, VENATION ADAXIALLY SUNKEN, SLIGHTLY PUBESCENT ALONG MIDRIB, MARGINS ENTIRE, PETIOLE SHORT; LIGHT BROWN, SMOOTHISH, SLIGHTLY FISSURED; LARGE TREE W/ TALL NARROW BUTTRESSES; COASTAL, LIMESTONE, AND LOWER MOUNTAIN REGIONS, CULTIVATED AS ORNAMENTAL

TABEBUIA HETEROPHYLLA (TABHET) LVS OPP, COMPOUND, PALMATE, LFLTS ELLIPTIC TO OBLANCEOLATE, LVS UP TO 15CM, MARGINS ENTIRE, PETIOLULE <3CM LONG, LVS WITH SCALES; BARK ROUGH & FURROWED, GRAY TO BROWN; SMALL TO MEDIUM TREE; WOODLANDS, HILLSIDES & THICKETS, WET & DRY ENVIRONMENTS

#### BORAGINACEAE

CORDIA BORINQUENSIS (CORBOR) LVS ALT, SIMPLE, ELLIPTIC TO OBOVATE, 1° & 2° VEINS RAISED ON BOTH SIDES, LVS 7-18CM, MARGINS ENTIRE, PETIOLE STOUT, 1-2.5CM, GROOVED, BRANCHING IN 3'S, TWIGS HAIRY WHEN YOUNG; BARK GRAY, WITH LENTICELS, FIBROUS BARK WHEN STRIPPED OR WHEN LVS REMOVED (STRONG BARK); SHRUB/TREE; MOIST TO WET, MIDDLE TO HIGH ELEVATIONS, ENDEMIC

CORDIA SULCATA (CORSUL) LVS ALT, SIMPLE, OVATE TO ELLIPTIC, ACCUMINATE TIP, +/- CORDATE @ BASE, 10-30CM, MARGINS +/- ENTIRE TO TOOTHED, PETIOLE STOUT 1-1.5CM, TOMENTOSE, LVS OFTEN INSECT-EATEN, ADAXIALLY ROUGH, ABAXIALLY SOFT-HAIRY AND LIGHTER IN COLOR, BRANCHES IN 3'S, TWIGS AND PETIOLES COVERED WITH BROWN TOMENTUM; BARK GRAY, SMOOTH TO FURROWED, MAY EXHIBIT STRONG BARK (SEE ABOVE); MEDIUM SIZED TREE; COMMON IN MOIST TO WET 2° FORESTS

#### BURSERACEAE

DACRYODES EXCELSA (DACEXC) LVS ALT, COMPOUND, LVS 10-20 CM, 5-7 LFLTS, OVATE-ELLIPTIC, ABRUPTLY ACCUMINATE TIP, VENATION APPEARING DARK WHEN VIEWED FROM SUBCANOPY, 6-12CM, MARGINS ENTIRE, PETIOLULES UP TO 1 CM, FRAGRANT WHEN CRUSHED; LIGHT BARK, FLAKING WHEN OLDER, TRUNK OFTEN EXUDING WHITISH RESIN WHERE DAMAGED, CITRONELLA-LIKE FRAGRANCE; LARGE TREE; HIGHER ELEVATION FORESTS; ENDEMIC

TETRAGASTRIS BALSAMIFERA (TETBAL) LVS ALT, COMPOUND, ODD-PINNATE, LANCEOLATE TO ELLIPTIC, ACUMINATE TIP, GLABROUS, 20-35CM, LARGE TERMINAL LFLT, TRANSLUCENT VENATION, 2° VEINS ANASTOMOSING, MARGINS ENTIRE, PETIOLULE <5MM LONG, TURPENTINE-LIKE FRAGRANCE WHEN CRUSHED (SWEETER THAN DACEXC); BARK RELATIVELY SMOOTH, GRAYISH, SLIGHTLY FISSURED; SHRUB TO SMALL TREE; FORESTS, WOODLANDS, ARROYOS AT LOWER-MID ELEVATIONS

#### CHRYSOBALANACEAE

HIRTELLA RUGOSA (HIRRUG) LVS ALT, SIMPLE, ADAXIALLY GLOSSY, OVATE-LANCEOLATE, SUBCORDATE LF BASE, ACCUMINATE APEX, 3-9CM, VEINS SUNKEN, MARGINS CILIATE, PETIOLE SMALL TO SESSILE, BRANCHES W/ BROWN/ORANGE HIRSUTE PUBESCENCE; SMALL TREE, BRANCHES TYPICALLY DROOPING; FORESTS, MIDDLE & HIGHER ELEVATIONS

#### CLUSIACEAE

CALOPHYLLUM ANTILLANUM (AKA C. CALABA- **CALCAL**) LVS OPP, SIMPLE, ELLIPTIC TO OBLONG, 6.5-15CM, PROMINENT MIDRIB, FINE UNIFORM PARALLEL 2° VENATION, MARGINS ENTIRE, PETIOLE RELATIVELY SHORT, ABAXIAL LF COLOR LIME GREEN, ADAXIAL DARK GREEN, TWIGS QUADRANGULAR; LATEX WHITE TO YELLOW; BARK WHITE/YELLOW MOTTLED WITH BLACK; TREE; LOW TO MIDDLE ELEVATIONS, WET AREAS, RIVER BANKS

CLUSIA ROSEA (CLUROS) LVS OPP, SIMPLE, OVATE-OBOVATE, CONSPICUOUS TAPERING MIDVEIN, 2°S NOT APPARENT, 10-15CM LONG, MARGINS ENTIRE, PETIOLE SHORT & STOUT, 2.5CM, LEAVES THICK & BRITTLE, ADAXIAL SIDE DARKER THAN ABAXIAL SIDE, YOUNGER BRANCHES WITH CIRCUMNODAL LF SCARS; LATEX YELLOWISH; BARK GREY, WARTY, INNER BARK PINKISH; TREE/STRANGLER; HILLSIDES, WOODS, RIVERBANKS, UP TO MIDDLE ELEVATIONS

RHEEDIA PORTORICENSIS (RHEPOR) LVS OPP, SIMPLE, ELLIPTIC-OVATE, APEX ACCUMINATE TO SPINE, MIDVEIN STIFF ON ADAXIAL SIDE, 2°S +/- PARALLEL, BRANCHING TOWARD MARGIN, 3-9CM, MARGIN ENTIRE, PETIOLE SHORT, CHANNELED; BRANCHES SLIGHTLY DROOPING;

BARK BROWN, SMOOTH, INNER BARK REDDISH WITH YELLOWISH LATEX (MAY OR MAY NOT BE APPARENT IN LVS); BRANCHES SOMETIMES DROOPING; SHRUB/TREE; LOWER ELEVATION FORESTS

MAMMEA AMERICANA (MAMAME) LVS OPP, SIMPLE, ELLIPTIC TO OBOVATE, ROUND TO NOTCHED LF APEX, 10-20CM, MANY // 2°S, MARGINS ENTIRE, SLIGHTLY REVOLUTE, PETIOLE STOUT 1-1.5CM, LVS GLAND-DOTTED; STOUT TWIGS; BARK GRAY, FISSURED, INNER BARK REDDISH; TREE; MOIST TO WET FORESTS AND HILLSIDES, INTRODUCED

#### COMBRETACEAE

BUCHENAVIA TETRAPHYLLA (BUCTET) LVS ALT, SIMPLE, OBOVATE TO SPATULATE, 2-9CM, ANASTOMOSING 2° VEINS, MARGINS ENTIRE, PETIOLES 5-10MM; BRANCHES W/ SYMPODIAL GROWTH, LVS PSEUDOWHORLED @ BRANCH ENDS; SMOOTHISH DARK BARK, FLUTED TRUNK; TREE 8-30M; MOIST AND WET FORESTS

#### CYATHACEAE

CYATHEA ARBOREA (CYAARB) LVS OVATE, TWICE PINNATE-PINNATIFID, ACCUMINATE APEX, ACUTE AT BASE, 2-3.5M, COVERED IN LIGHT BROWN PAPERY SCALES, INDUSIUM SYMMETRIC, SHALLOW, NEVER ENCLOSING SORI; YOUNG LEAVES CROSIERS; BARK CONSISTING OF BLACKISH INTERWOVEN ADVENTITIOUS ROOTS, VERY ROUGH TEXTURE; ERECT FERN TO 15M; MOIST CLEARINGS, 50-1250M ALTITUDE

#### CYRILLACEAE

CYRILLA RACEMIFLORA (CYRRAC) LVS ALT, SIMPLE, OBLANCEOLATE TO OBOVATE, CUNNEATE @ BASE, 2-11CM, FINE ANASTOMOSING 2°S, MARGINS ENTIRE, SLIGHTLY REVOLUTE, PETIOLE UP TO 4MM; BARK SHAGGY, REDDISH BROWN; TREE; MOIST TO WET MOUNTAIN FORESTS

#### EUPHORBIACEAE

ALCHORNEA LATIFOLIA (ALCLAT) LVS ALT, SIMPLE, WIDELY OVATE OR ELLIPTIC, SUBCORDATE BASE W/ 2 GLANDULAR SPOTS NEAR LF BASE, 8-25 CM, NERVE AXILS PUBESCENT, MARGINS CRENATE TO TOOTHED, TEETH GLAND-TIPPED, PETIOLE 2-12CM (USUALLY 1/2 LENGTH OF LEAF OR GREATER), STELLATE HAIRS ON YOUNG TWIGS; BARK GREY TO LIGHT BROWN; MEDIUM SIZED TREE UP TO 20M; WET TO MOIST AREAS IN FORESTS AND HILLSIDES

ALCHORNEOPSIS FLORIBUNDA (ALCFLO) LVS ALT, SIMPLE, ELLIPTIC TO OBOVATE ELLIPTIC, 5-15CM, 3 PROMINENT PSUEDOMELOSTOMATIC BASAL VEINS, MARGINS SLIGHTLY TOOTHED TO UNDULATE, PETIOLE 1-5CM, LVS W/ HAIRS ON ABAXIAL VEINS, MARGIN GLANDS AT LF BASE; TERETE TWIGS, HAIRY WHEN YOUNG; BARK LIGHT GRAY, SLIGHTLY FISSURED; SMALL TO MEDIUM SIZED TREE (UP TO 20M); MID-ELEVATION MOUNTAIN FORESTS

DRYPETES GLAUCA (DRYGLA) LVS ALT, SIMPLE, ELLIPTIC/OVATE LANCEOLATE, SLIGHTLY ASYMMETRICAL BASE, ACCUMINATE APEX, 5-12CM, RETICULATE VENATION, MARGINS SLIGHTLY UNDULATE, SLIGHTLY CRENATE TO ENTIRE, PETIOLE THICK & WOODY, 1-2CM, TWIGS PUBERULENT W/ WIDELY SPACED LVS; FLRS IN LF AXILS; BARK W/ PIMPLY LENTICELS, NEARLY WHITE; MOIST TO WET FORESTS, USUALLY HIGHER ELEVATIONS

#### FABACEAE

ANDIRA INERMIS (ANDINE) LVS ALT, COMPOUND, 2.5-13CM, LFLTS OBLONG TO OVATE, OPPOSITE, TYPICALLY WITH A TERMINAL LFLT, VENATION OBSCURE, MARGINS ENTIRE, ADAXIAL LF SURFACE SHINY, CRUSHED LVS WITH PEA-LIKE FRAGRANCE, LIGHT GREEN PULVINUS PRESENT, STOUT & HAIRY YOUNG TWIGS; BARK ROUGH, LIGHT GRAY, INNER BARK WITH ACRID ODOR; TREE UP TO 25M, ROUND/SPREADING CROWN; WOODLANDS AND HILLSIDES, RIVERSIDES

INGA LAURINA (INGLAU) LVS ALT, COMPOUND, EVEN PINNATE, 7-20CM, LFLTS 1-3 PAIRS, OBLIQUELY OVATE, UNEQUAL AT BASE, 5-10CM, PULVINUS YELLOWISH, GLANDS ON RACHIS B/T LFLT PAIRS, DISTAL LVS USUALLY LARGEST; HORIZONTAL LENTICELS ON BARK; MEDIUM SIZED TREE; WOODLANDS, LOW TO HIGHER ELEVATIONS

INGA VERA (INGVER) LVS ALT, COMPOUND, EVEN-PINNATE, LFLTS 4-6 PAIRS, OBLONG TO ELLIPTIC, LFLTS CONSPICUOUSLY DIVERGENT- ESP. TERMINAL PAIR, RACHIS WINGED & HAIRY W/ PELTATE GLANDS B/T LFLT PAIRS; PULVINUS YELLOWISH; HORIZONTAL LENTICELS ON BARK; TREE

PTEROCARPUS OFFICINALIS (PTEOFF) LVS ALT, COMPOUND, ODD-PINNATE, 5-41CM, LFLTS OBLONG-LANCEOLATE, 5-9 PER LF, SUB-OPP TO ALTERNATE, LFLTS DROOPING, ENLARGING DISTALLY, MARGIN ENTIRE, PETIOLULES STOUT & GREEN; YOUNG SHOOTS REDDISH; SAP BLOOD-RED; BARK SMOOTHISH, LIGHT BROWN, BECOMING THINLY FISSURED & SCALY; LARGE TREE; PLANKLIKE BUTTRESSES THAT EXTEND HIGH UP THE TRUNK AND HORIZONTALLY ALONG ROOTS; PRIMARILY IN SWAMP FORESTS, LANDWARD SIDE OF MANGROVES, & LOWER LUQUILLO FOREST ALONG STREAMBANKS

SENNA SIAMEA (SENSIA) LVS ALT, COMPOUND, EVEN-PINNATE; LFLTS 6-15 PAIRS, OBLONG TO OBLONG LANCEOLATE, 3-7CM, MARGIN ENTIRE, MINUTELY ABAXIALLY PUBERULENT, PETIOLULE 3MM; STIPULES SMALL, CADUCOUS; BARK PALE; MEDIUM TREE; PLANTED FOR SHADE AND ORNAMENTATION, NATURALIZED IN PR

#### LAURACEAE

OCOTEA LEUCOXYLON (OCOLEU) LVS ALT, SIMPLE, OBLONG-LANCEOLATE TO ELLIPTIC OR OVATE-ELLIPTIC, BLUNTED APEX, 10-30CM, MARGIN ENTIRE, OFTEN WITH RAISED TRANSLUCENT GALLS, PETIOLE SHORT AND CURVED, YOUNG TWIGS AND BUDS FINELY PUBESCENT (VELVETY); BARK SMOOTH TO SLIGHTLY FISSURED, BROWN TO GRAY; SMALL-MEDIUM TREE; HILLSIDE THICKETS AND FOREST IN WET/MOIST DISTRICTS, ASCENDING TO HIGHER ELEVATIONS

OCOTEA SINTENSIS (OCOSIN) LVS ALT, SIMPLE, LANCEOLATE TO ELLIPTIC OR OVATE, ACUTE APEX, 4.5-20CM, MARGIN ENTIRE, PETIOLE "S"-SHAPED, MEATY STIPULES, PUBESCENT YOUNG TWIGS; SMALL-MEDIUM TREE, NARROW BUTTRESSES; FORESTS IN WET/MOIST DISTRICTS

OCOTEA SPATHULATA (OCOSPA) LVS ALT, SIMPLE, SPATULATE OR OBOVATE, CORIACEOUS, SLIGHTLY SUNKEN MIDRIB & SLIGHTLY RAISED 2° VEINS, CLUSTERED @ BRANCH ENDS, MARGIN ENTIRE, SLIGHTLY REVOLUTE, PETIOLE SHORT (0.3-0.7CM), SPICY LVS AND TWIGS; BARK GRAY TO BROWN, SCALY, THICK AND FISSURED ON LARGER TRUNKS; SMALL-MEDIUM TREE; UPPER LUQUILLO AND CORDILLERA REGIONS, ASCENDING INTO DWARF FORESTS

#### MALPIGHIACEAE

BYRSONIMA SPICATA (BYRSPI) LVS OPP, SIMPLE, BRITTLE, LANCEOLATE, ACCUMINATE TIP, CAPILLARY VASCULAR TERMINATIONS, 5-14CM, CLUSTERED @ BRANCH ENDS, MARGIN CRENATE, PETIOLE SHORT, CHANNELED, YOUNG PARTS COVERED IN DENSE DOLABRIFORM HAIRS, INTRAPETIOLAR STIPULES; BARK AND TRUNK SLIGHTLY TWISTED IN MATURE TREES, INNER BARK PINKISH; TREE; WET/MOIST AREAS, LOWER AND MIDDLE ELEVATIONS

BYRSONIMA WADSWORTHII (BYRWAD) LVS OPP, SIMPLE, ELLIPTIC TO OVATE, ROUND TO NOTCHED APEX, 3-8CM, LVS CLUSTERED @ BRANCH ENDS, MARGIN SLIGHTLY REVOLUTE, PETIOLE 3-6MM, INTRAPETIOLAR STIPULES, TWIGS & ABAXIAL LF SIDE GRAY W/ APPRESSED HAIRS; BARK HAIRY BROWN TO DARK BROWN & FISSURED, RED STREAKED INNER BARK; SMALL TO MEDIUM TREE; FORESTS, HIGH MOUNTAINS; ENDEMIC

#### MELASTOMATACEAE

CALYCOGONIUM SQUAMULOSUM (AKA HENRIETTEA SQUAMULOSUM- **CALSQU**) LVS OPP, SIMPLE, ELLIPTIC TO OBOVATE, MIDRIB WITH TWO ARCUATE 2° VEINS, 3-9 CM, MARGIN REVOLUTE, PETIOLE 8-12MM; BARK BROWN TO GRAY; MEDIUM SIZED TREE; CONFINED TO MOUNTAINS; BRANCHES NEARLY HORIZONTAL; YOUNG LEAVES WITH BROWN ABAXIAL DOT-LIKE SCALES, ABAXIAL LF COLOR LIGHTER, ADAXIAL DARKER AND SHINY; ENDEMIC

HENRIETTEA FASCICULARIS (**HENFAS**) LVS OPP, SIMPLE, ELLIPTIC TO OBLONG, 3-PLINERVED, PLUS INCONSPICUOUS SUBMARGINAL NERVES, ABAXIAL SURFACE GRAY-GREEN WITH PINK VEINS, 7-20CM, MARGIN ENTIRE, BOTH LF SURFACES & PETIOLES HAIRY (NOT AS SHINY AS **MICRAC**); BRANCHES SLIGHTLY QUADRANGLED, CANDELABRA-LIKE BRANCHING PATTERN; BARK LIGHT BROWN, FINELY FISSURED; SMALL TREE; UNCOMMON, WET TO MOIST FORESTS, ASCENDING TO HIGHER ELEVATIONS ABAXIAL SURFACE GRAY-GREEN

MICONIA AFFINIS (**MICAFF**) LVS OPP, SIMPLE, OBLONG ELLIPTIC TO ELLIPTIC, 3-5 PLINERVATE- USUALLY APPEARING TO ARISE FROM PETIOLE BEFORE LF BLADE, 10-22CM, MARGIN ENTIRE TO UNDULATE SERRATE, ABAXIAL LF SURFACE W/ SPARSE STELLATE HAIRS, GLABROUS @ MATURITY, PETIOLE 1-2.5CM, RAISED CIRCUMNODAL RINGS; SHRUB TO SMALL TREE; RARE, LUQUILLO MTS

MICONIA IMPETIOLARIS (**MICIMP**) LVS OPP, SIMPLE, LANCEOLATE TO OBLANCEOLATE, ACCUMINATE TIP, LF BASE +/- CORDATE, 5-PLINERVATE (2 MARGINAL NERVES SLENDER), LATERAL VEINS +/- //, 20-40CM, DARK GREEN, MARGIN ENTIRE OR DENTICULATE, HAIRY, PETIOLE VERY SHORT TO SESSILE, TWIGS & ABAXIAL LF SURFACE W/ DENSE RUSTY-BROWN STELLATE HAIRS; SHRUB TO SMALL TREE; WOODLANDS, MOIST TO WET AREAS, UP TO HIGHER ELEVATIONS

MICONIA LAEVIGATA (**MICLAE**) LVS OPP, SIMPLE, LANCEOLATE TO OBLONG OVATE, LONG ACCUMINATE TIP, 5-PLINERVATE, VEINS ABAXIALLY RAISED, 8-20CM, MARGIN OFTEN CILIATE, FINELY WAVY, LVS STELLATE-SCALY (MOSTLY ABAXIALLY), PINKISH YOUNG STEMS AND PETIOLE, PETIOLE SLENDER; ADAXIALLY SHINIER & GREENER THAN ABAXIAL SIDE; BARK GRAY, SMOOTH, INNER BARK GREEN; SHRUB TO SMALL TREE; COMMON IN MOIST LIMESTONE FOREST

MICONIA MIRABILIS (**MICMIR**) LVS OPP, SIMPLE, OVATE TO OBLONG-LANCEOLATE, ACCUMINATE TIP, +/- ROUNDED BASE, 5-PLINERVATE, VEINS ADAXIALLY SUNKEN, 2°S +/- //, 8-18CM, MARGIN ENTIRE, LVS W/ SANDPAPER TEXTURE, DENSE GOLDEN ABAXIAL STELLATE HAIRS, NEARLY GLABROUS ADAXIALLY, PETIOLE 1.5-6CM; TWIGS, PETIOLES, AND MIDVEINS W PINK OR RUDDY HUE; BARK GRAY, SMOOTH TO FINELY FURROWED; TRUNK USUALLY QUADRANGULAR-COLUMNAR; SHRUB TO SMALL TREE; FORESTS, MOIST TO WET AREAS TO HIGHER ELEVATIONS

MICONIA PRASINA (**MICPRA**) LVS OPP, SIMPLE, ELLIPTIC, ACUTE TO SHORT ACCUMINATE TIP, 3-PLINERVATE, 5 VEINS TOTAL-MARGINAL VEINS OBSCURE, 6-25CM, MARGIN WAVY, DENTICULATE, LVS ADAXIALLY LIGHTER, MATTE GREEN COLOR, GLABROUS, PETIOLE UP TO 2 CM, WINGED; PURPLE BERRIES; BARK SMOOTH, GRAY, THIN, INNER BARK BROWN/YELLOW; SHRUB TO SMALL TREE; MOIST AREAS, LOW TO HIGH ELEVATIONS

MICONIA RACEMOSA (**MICRAC**) LVS OPP, SIMPLE, OBOVATE TO ELLIPTIC, 5-PLINERVATE, 2°S +/- // @ OBTUSE ANGLES, 8-24CM, MARGIN DENTICULATE & CILIATE, PETIOLE 1-6CM, BRISTLY AT BLADE JUNCTION, GENERALLY LONG COMPARED TO LF BLADE, LF BLADE BROAD RELATIVE TO LENGTH, DARK GREEN, SHINY, GLABROUS @ MATURITY; BARK GRAY, FINELY FISSURED; SHRUB TO SMALL TREE; MOIST AREAS TO ~1000M ELEV.

MICONIA SERRULATA (**MICSER**) LVS OPP, SIMPLE, OVATE-OBLONG TO OVATE OR ELLIPTIC, ROUND TO CORDATE BASE, 5-9 PLINERVATE, 2°S +/- //, ALL VENATION SLIGHTLY ADAXIALLY SUNKEN, PETIOLE 15-35CM, MARGIN DENTICULATE OR ALMOST ENTIRE, LVS GLABROUS @ MATURITY, +/- THICK, PETIOLE 3.5-12.5CM, FLESHY, CINNAMON-BROWN; BARK LIGHT BROWN



AND FINELY FISSURED WHEN MATURE; SHRUB TO SMALL TREE; MOUNTAIN FORESTS, TO ELEVATIONS OF ~500M

MICONIA TETRANDBRA (MICTET) LVS OPP, SIMPLE, OBLONG TO OBLONG LANCEOLATE, ACCUMINATE APEX, NARROWED TO ROUNDED BASE, 3-PLINERVATE-5 TOTAL, MARGINAL VEINS OBSCURE, 8-20CM, MARGIN ENTIRE, PETIOLE 2-4CM, PINK/LIGHT BROWN, SCALY, VELVETY, SPARSELY SCALY @ MATURITY, ABAXIALLY LIGHTER GREEN, +/- THICK; LIGHT GRAY, FISSURED WHEN MATURE, INNER BARK LIGHT ORANGE/YELLOW; SHRUB TO TREE; COMMON AT MIDDLE AND HIGHER ELEVATIONS IN MOUNTAIN FORESTS

TETRAZYGIA URBANII (TETURB) LVS OPP, SIMPLE, NARROWLY ELLIPTIC TO LANCEOLATE, LONG ACCUMINATE APEX, 5 PSEUDO-MELOSTOMATIC VEINS- 2 // TO MARGINS, 6.35-13.35CM, MARGIN ENTIRE, ABAXIAL LEAF SURFACE AND TWIGS COVERED IN WHITISH GRAY MINUTE SCALE HAIRS, YNG LEAVES CRENUATE AND PUBESCENT, PETIOLE 0.5-3.25CM, RINGED NODES BECOMING ENLARGED W/ RAISED HALF-ROUND LEAF SCARS, TWIGS FOUR-ANGLED; BARK GRAY, SLIGHTLY FISSURED, INNER BARK ORANGE-BROWN AND ASTRINGENT; SMALL TREE UP TO 8.5 M AND 15 CM DIAM; RARE IN LOWER LUQUILLO FOREST, 300M-600M ELEV.

#### MELIACEAE

TRICHILIA PALLIDA (TRIPAL) LVS ALT, COMPOUND, ODD-PINNATE, OBLONG-ELLIPTIC TO OBLANCEOLATE OR OBOVATE, LVS +/- ASYMMETRICAL, TERMINAL LFLT LARGEST, 3-7 LFLTS, VEINS SUNKEN & PROMINENT ON UNDERSIDE CAUSING WRINKLED APPEARANCE, 15-25CM LONG, LFLTS 3.5-15CM, MARGIN ENTIRE, PETIOLE STUBBY, SEMI-CHANNELLED; BARK DARK BROWNISH-GRAY; SHRUB TO SMALL TREE 15-30 FT; FOREST UNDERSTORY IN LOWER MOUNTAINS AND MOIST LIMESTONE REGIONS

GUAREA GLABRA (GUAGLA) LVS ALT, COMPOUND, EVEN-PINNATE, 1-8 LFLT PAIRS, MOSTLY OBLONG, ACCUMINATE APEX, ACUTE AT BASE, RETICULATE VEINED, QUILTED IN APPEARANCE, LVS 15-30CM, LFLTS 7-22CM, PETIOLE STOUT BROWN, TWIGS GLABROUS, LVS MORE MATTE THAN GUAGUI, BROWN TRIANGULAR PSEUDO-PULVINUS, RAISED LF SCARS; BARK GRAY/BROWN, PINKISH INNER BARK; SMALL TREE; WET TO MOIST FORESTS UP TO MID ELEVATIONS

GUAREA GUIDONIA (GUAGUI) LVS ALT, COMPOUND, EVEN PINNATE, ELLIPTIC TO OBLONG, ABRUPTLY ACCUMINATE LF TIP, 4-10 LFLT PAIRS, LVS 10-50CM, LFLTS 7-17CM, MARGIN SLIGHTLY WAVY, DISTINCT "DIVING DUCK" BUD OF DEVELOPING LVS, LFLTS "QUILTY" IN APPEARANCE, SHINIER THAN GUAGLA, APPRESSED HAIRS ON LVS, PETIOLE SHORT, STOUT, BROWN, BRANCHES PUBESCENT; BARK REDDISH, PINKISH INNER BARK; TREE W/ BUTTRESSED TRUNK; LOWER TO MIDDLE ELEVATIONS

SWIETENIA MACROPHYLLA (SWIMAC) LVS ALT, COMPOUND, EVEN-PINNATE, GLABROUS, 3-6 PAIRS OF LFLTS, INEQUILATERAL, LVS UP TO 30 CM, LFLTS 7.5-15CM, MARGIN ENTIRE, PETIOLULE <0.6CM; FRUIT A LARGE, DEHISCENT, PYRIFORM CAPSULE; BARK ROUGH, DEEPLY FISSURED INTO FLAT SCALES, LIGHT BROWN, INNER BARK PINKISH BROWN; LRG TREE BUTTRESSED AT TRUNK; PLANTED EXTENSIVELY IN PUBLIC FORESTS, PATIOS AND ALONG ROADSIDES

#### MORACEAE

FICUS AMERICANA (AKA F. SINTENISII- FICAME) LVS ALT, SIMPLE, CORIACEOUS, MILKY WHITE LATEX, LVS ELLIPTIC TO OVAL, NUMEROUS PARALLEL 2°S +/- PERP. TO MIDRIB, VEINS ARCUATE & ANASTOMOSING NEAR MARGIN, LVS 3-7.5CM, MARGIN ENTIRE, PETIOLE SHORT, 0.5-1CM, CIRCUMNODAL STIPULE SCARS, BUD COVERED BY LONG GREEN STIPULE/SCALE, LVS ABAXIALLY YELLOW-GREEN IN COLOR; BARK LIGHT GRAY, SMOOTH; SMALL TO MEDIUM SIZED TREE; MOUNTAIN FORESTS; ENDEMIC

FICUS TRIGONATA (AKA F. CITRIFOLIA & F. LAEVIGATA- FICTRI) LVS ALT, SIMPLE, MILKY WHITE LATEX, +/- LANCEOLATE TO ELLIPTIC TO OVATE TO OBOVATE- OFTEN VARY GREATLY IN

SHAPE, ACUTE TO ROUNDED APEX, CUNEATE TO CORDATE AT BASE, 4-16 PAIRS OF 2°S @ NEARLY 90° TO MIDRIB, LVS 2.5-20CM, ADAXIALLY "DARK-DOTTED) MARGIN ENTIRE, PETIOLE UP TO 7CM; WHITISH AND SLIGHTLY FISSURED; SMALL TO MEDIUM SIZED TREE; FORESTS OF LOWER TO MIDDLE ELEVATIONS

PSEUDOLMEDIA SPURIA (PSESPU) LVS ALT, SIMPLE, MILKY WHITE LATEX, OBLONG-LANCEOLATE TO OBLONG-ELLIPTIC, ABAXIALLY PALE AND RETICULATE, 6-20CM, MARGIN ENTIRE, PETIOLE SESSILE TO 5MM, NARROW STIPULES; YOUNG BRANCHES GLABROUS; BARK ROUGH, SLIGHTLY SCALY; SMALL TREE; MOIST LIMESTONE HILLS NEAR NORTHERN COAST

ARTOCARPUS ALTILIS (ARTALT) LVS ALT, PINNATIFID, LATEX, ACCUMINATE LOBES, 30-100CM; OFTEN WITH LARGE, GREEN, ORBICULAR COMPOUND FRUITS BARK GRAY, SMOOTH; TREE; HILLSIDES, VALLEYS, ESCAPED FROM CULTIVATION

#### MYRSINACEAE

ARDISIA GLAUCIFLORA (ARDGLA) LVS ALT, SIMPLE, ELLIPTIC TO OBLONG-OVATE INCONSPICUOUSLY RETICULATE-VEINED, LVS 5-25CM, W/ GLANDULAR DOTS, ABAXIAL SIDES LIGHTER IN COLOR, MARGIN ENTIRE, SLIGHTLY REVOLUTE, PETIOLE FLATTENED & SLIGHTLY WINGED, NEARLY SESSILE; BARK SMOOTH, GRAY, TWIGS HAIRY; SHRUB/TREE; FORESTS, UNCOMMON

#### MYRTACEAE

CALYPRANTHES LUQUILLENSIS (CALLUQ) LVS OPP, SIMPLE, ELLIPTIC-OVATE, MIDRIB DEPRESSED, PROMINENT, 2° VEINS +/- PARALLEL, LVS 5-18CM, VERY FINE COLLECTING VEIN, LEAVES ADAXIALLY SHINY DARK GREEN, ABAXIALLY LIGHT GREEN, OLDER LEAVES OFTEN COVERED IN A SOOTY MOLD, PETIOLE SHORT, STOUT, CHANNELED; YOUNG BRANCHES TERETE; BARK GRAY, INNER BARK LIGHT BROWN; SHRUB TO SMALL TREE; RARE

EUGENIA DOMINGENSIS (EUGDOM) LVS OPP, SIMPLE, ELLIPTIC TO LANCEOLATE, ACCUMINATE APEX, LVS 6-12CM, SLIGHTLY FRAGRANT, ADAXIALLY SHINIER AND DARKER GREEN, SCATTERED GLAND-DOTTED, MARGIN ENTIRE, PETIOLE 0.5-2CM; BARK LIGHT GRAY TO WHITISH, IRREGULARLY FLAKING WITH AGE; SAPWOOD BROWN; TREE; LOWER AND MIDDLE ELEVATION FORESTS

EUGENIA STAHLII (EUGSTA) LVS OPP, SIMPLE, OVATE TO ELLIPTIC, GLAND-DOTTED, BRITTLE, FRAGRANT WHEN CRUSHED, INCONSPICUOUS 2°S, LVS 5-13CM, MARGIN ENTIRE, PETIOLE VERY SHORT, THICK, ABAXIAL SIDE LIGHT GREEN, EASILY BRUISED W/ FINGERNAIL; BARK LIGHT GREY, PINKISH SAPWOOD; SMALL TO MEDIUM TREE; COMMON IN TRANSITION B/ T UPPER AND LOWER ELEVATION FORESTS

MYRCIA DEFLEXA (MYRDEF) LVS OPP, SIMPLE, STIFF, OBLONG-ELLIPTIC TO OBLONG LANCEOLATE, ACCUMINATE APEX, PINNATELY & RETICULATELY VEINED, ABAXIALLY PUBESCENT, ADAXIALLY SHINY, MINUTE GLANDS- OBSOLETE @ MATURITY, OFTEN COVERED W/ SOOTY MOLD, 5-16CM, MARGIN SLIGHTLY REVOLUTE, PETIOLE 3-6MM, STOUT; TWIGS DENSELY COVERED W/ BROWN VELVETY PUBESCENCE; BARK GRAY, CRACKED/FISSURED W/ AGE, PINKISH INNER BARK; SHRUB TO TREE; MOIST TO WET FORESTS TO HIGHER ELEVATIONS

MYRCIA FALLAX (MYRFAL) LVS OPP, SIMPLE, STIFF, ELLIPTIC TO ELLIPTIC OBLONG, ACCUMINATE APEX, NERVES SLIGHTLY ABAXIALLY RAISED, ABAXIALLY RETICULATE, MINUTE GLANDS-OBSOLETE @ MATURITY, LVS 6-10CM, MARGIN ENTIRE, PETIOLE 5-8MM; TWIGS SLIGHTLY PUBESCENT; BARK SLIGHTLY PEELING, INNER BARK REDDISH; SHRUB TO SMALL TREE; UNCOMMON, UPPER FORESTS

MYRCIA LEPTOCLADA (**MYRLEP**) LVS OPP, SIMPLE, ELLIPTIC TO OVATE-LANCEOLATE, LONG ACCUMINATE APEX, 2° VEINS SLIGHTLY AD- & ABAXIALLY RAISED, YOUNG LVS SOMETIMES PINK, MINUTE GLANDS-OBSOLETE @ MATURITY, 5-12CM, MARGIN ENTIRE, PETIOLE 2-6MM, LVS USUALLY BIGGER THAN MYRSPL ; BARK SMOOTH, OLD BARK RED, PAPERY AND PEELING; SMALL TREE; UNCOMMON, LOWER ELEVATIONS TO ~650M

MYRCIA SPLENDENS (**MYRSPL**) LVS OPP, SIMPLE, OVATE-LANCEOLATE, SUNKEN MIDVEIN, NUMEROUS NEARLY PARALLEL 2° VEINS, LVS 2.5-7.5CM, FINELY PUBESCENT, SCATTERED PELLUCID DOTS/GLANDS, MARGIN ENTIRE- SLIGHTLY REVOLUTE, PETIOLE VERY SHORT; BARK BROWN OR GRAY, ROUGH, FISSURED, FLAKY OR DIVIDED INTO PLATES; SMALL TREE; COMMON IN FORESTS AND OPENINGS IN MOIST AREAS AND LOWER MOUNTAINS

SYZGIUM JAMBOS (**SYZJAM**) LVS OPP, SIMPLE, NARROWLY LANCEOLATE RETICULATE, 9-20 CM, MARGIN ENTIRE, OFTEN WITH RUST-LIKE SPOTS ON LEAVES, GLAND-DOTTED ON ABAXIAL SIDE; BARK GRAY-BROWN, SMOOTH; SMALL TREE; THICKETS AND WOODLANDS AT LOW-MID ELEVATIONS; COMMON IN SB2

#### PENTAPHYLACACEAE

TERNSTROEMIA LUQUILLENSIS (**TERLUQ**) LVS ALT, SIMPLE, ELLIPTIC TO OBLONG, OBTUSE OR ACUTE APEX, VEINS SUNKEN ON ADAXIAL SIDE, OBSCURE, LVS 5.5-12CM, ABAXIAL LEAF SURFACE LIGHT GREEN W/ BLACK DOTS, GLABROUS, BUD EXSTIPULATE FORMED BY YOUNG ROLLED LEAF, MARGIN ENTIRE, PETIOLE STOUT, 6-12 MM LONG; BARK DARK GRAY, NEARLY SMOOTH; MEDIUM TREE- 6-20 M, NARROW CROWN OF DENSE FOLIAGE

#### PIPERACEAE

PIPER BLATTARUM (**PIPBLA**) LVS ALT, SIMPLE, ELLIPTIC, INEQUILATERAL BASE, 3-5 PLINERVATE BELOW MIDDLE, PSEUDO-MELASTOME VENATION, LVS 6-14 CM, MARGIN ENTIRE, PETIOLE 0.5-2CM; SWARTY LENTICELS ON STEMS, SWOLLEN NODES, SPICY ODOR & TASTE; SHRUB; MOIST, MOUNTAIN WOODLANDS

PIPER GLABRESCENS(**PIPGLA**) LVS ALT, SIMPLE, ELLIPTIC-OBLONG, +/- SUBCORDATE AT BASE, INEQUILATERAL BASEPLINERVATE PINNATE VENATION, PUBESCENT ABAXIAL VENATION, LVS 15-24CM, SLIGHT FRAGRANCE, PELLUCID DOTTED, MARGIN ENTIRE; SWOLLEN NODES; 1-3M SHRUB; MOUNTAIN FOREST, RAVINES

PIPER HISPIDUM (**PIPHIS**) LVS ALT, SIMPLE, ELLIPTIC-OBLONG, INEQUILATERAL BASE, 2° VENATION EMERGING @ ACUTE ANGLES FROM MIDRIB AND NEARLY CONVERGING TOWARDS APEX, 5-6 NERVES/SIDE, LVS 11-25CM, ABAXIAL LF SURFACE SCABROUS; SLIGHTLY FRAGRANT, MARGIN ENTIRE; SHRUB/TREE; MOIST, SHADED HILLSIDES

PIPER JACQUEMONTIANUM (**PIPJAC**) LVS ALT, SIMPLE, NARROWLY TO BROADLY LANCEOLATE, TAPERING TO APEX, INEQUILATERALLY ROUNDED BASE, 2° VENATION PINNATE TOWARDS BASE & NEARLY PARALLEL TOWARDS APEX (PLINERVATE), LVS 12-25CM, W/ PELLUCID DOTS, SLIGHTLY FRAGRANT LEAVES, MARGIN ENTIRE, PETIOLE DEEPLY CHanneled; STEMS LIGHT GREEN SPOTTED; SHRUB; THICKETS, RAVINES, RIVER BANKS AND HILLSIDES AT LOW-MID ELEVATIONS

#### POLYGONACEAE

COCCOLOBA PYRIFOLIA (**COCPYR**) LVS ALT, SIMPLE, ELLIPTIC TO OVATE, THICK, CORIACEOUS, GLABROUS, VEINS +/- INCONSPICUOUS ON BOTH SURFACES, LVS 4.5-12CM, MARGIN ENTIRE, PETIOLE SMALL- TO 1CM, OCREA 10MM WIDE; BARK SMOOTH GRAY, BRANCHES & TWIGS GLABROUS; SHRUB TO TREE; MOIST COASTAL AND LOWER ELEVATIONS; ENDEMIC

COCCOLOBA SWARTZII (**COCSWA**) LVS ALT, SIMPLE, OVATE TO ELLIPTIC TO ORBICULAR, ROUND TO CORDATE BASE, RAISED RETICULATION WHEN DRIED, MARGIN ENTIRE, PETIOLE

SMALL- TO 1CM, OCREA 10-12MM WIDE, CANOPY LVS OFTEN OVATE, PITTED ABOVE, GLANDULAR BELOW; BARK SMOOTH TO FISSURED GRAY, INNER BARK PINKISH-BROWN; MEDIUM TREE; LOWER TO UPPER MOUNTAINS

#### RHIZOPHORACEAE

CASSIPOUREA GUIANENSIS (**CSSGUI**) LVS OPP, SIMPLE, OBLONG-ELLIPTIC/LANCEOLATE, ACUMINATE APEX, +/- INCONSPICUOUS 2°S, MARGIN SINUATE-SERRATE, PETIOLE 3-10MM, BUD W/ NARROW GREEN STIPULES, ABSCISING TO FORM CIRCUMFLUENT SCAR; BARK DARK GRAY, FINELY FISSURED, OLDER BRANCHES SWOLLEN AT NODES; SHRUB TO TREE; MOIST TO WET WOODLANDS, LOWER & MIDDLE ELEVATIONS

#### RUBIACEAE

ANTIRHEA OBTUSIFOLIA (**ANTOBT**) LVS OPP, SIMPLE, OVATE ELLIPTIC TO OVATE, LANCEOLATE, ROUNDED TO SUBCORDATE LF BASE, PINNATELY VEINED, 5-20CM, MARGIN ENTIRE, DARK GREEN, PETIOLE SMALL, STOUT, 5MM, STIPULES 5-8MM, OFTEN FORMING A RIDGED SCAR UPON ABSCISSION; BARK GRAY AND SMOOTH, INNER BARK REDDISH, TWIGS ARE GRAY AND STOUT; TALL SHRUB TO TREE; MIDDLE ELEVATION FORESTS

CHIONE VENOSA (**CHOVEN**) LVS OPP, SIMPLE, CORIACEOUS, ELLIPTIC TO OBLONG, 5-6 PRONOUNCED PAIRS OF 2° VEINS, LVS 7-16 CM, PURPLISH COLOR, LVS SHINY ADAXIALLY, DULL BELOW, NARROWED AT BOTH ENDS, MARGIN ENTIRE, PETIOLE STOUT, 5-20MM, STIPULES INTERPETIOLAR; BARK SMOOTH, DARK, TWIGS GREY, GREEN WHEN YOUNG; SMALL TREE; RARE IN MOIST FORESTS

FARAMEA OCCIDENTALIS (**FAROCC**) LVS OPP, SIMPLE, OBLONG TO ELLIPTIC, ACCUMINATE APEX, 7-20CM, DARK GREEN, SHINY, MARGIN ENTIRE, PETIOLE 5-10MM, LVS APPEARING "PUSHED FORWARD", +/- SMALLER THAN **IXOFER** WITH MORE PRONOUNCED DRIP-TIP, STIPULES ARE INTRAPETIOLAR DELTOID-ARISTATE & CROSSED, 1-2CM; FLOWERS IN TERMINAL LF AXILS; TWIGS ARE GREEN, SLENDER, SHINY & QUADRANGULAR, BRANCHES DISTICHOUS; BARK GRAY/BROWN AND SMOOTH; SMALL TREE; MOIST FORESTS TO MIDDLE ELEVATIONS

GONZAGALUNIA SPICATA (AKA G. HIRSUTA- **GONSPI**) LVS OPP, SIMPLE, LANCEOLATE TO OBLONG, ACUTE TO ROUND AT BASE, 10-12 PAIRS OF LATERAL, ASCENDENT NERVES, PROMINENT BENEATH, LVS SOFT PUBESCENT TO GLABRATE, 6-18CM, MARGIN ENTIRE, SMALL LF PAIRS IN AXILS, STIPULES INTERPETIOLAR TRIANGULAR SUBULATE, 4-12MM; FLRS IN LONG, THIN RACEME, WHITE; SCRAMBLING SHRUB TO SMALL TREE; MOIST WOODLANDS TO HIGHER ELEVATIONS

GUETTARDA VALENZUELANA(**GUEVAL**) LVS OPP, SIMPLE, OVATE TO OBOVATE, ROUNDED APEX, THICK MIDRIB & 2°S, 2°S WIDELY SPACED & CURVED, LVS 3-13CM, DARK GREEN, W/ PAIRED POINTY GREEN INTRAPETIOLAR STIPULES, STIPULES TRIANGULAR, 5-6MM, DENSELY PUBESCENT; PETIOLE SLIGHTLY REVOLUTE, STOUT, CHANNELED; BARK GRAY; SMALL TO MEDIUM SIZED TREE

IXORA FERREA (**IXOFER**) LVS OPP, SIMPLE, OBLANCEOLATE TO OBLONG-ELLIPTIC, ACCUMINATE APEX, YELLOWISH MIDRIB, LVS 7-20CM, MARGIN ENTIRE, STOUT, 6-15MM, STIPULES INTERPETIOLAR, TRIANGULAR SUBULATE; LVS GENERALLY BIGGER THAN FAROCC; FLRS IN AXILS AND CLUSTERS ALONG BRANCHES; TWIGS GREEN WHEN YOUNG & TURNING BROWN, BRANCHES USUALLY WITH GNARLED/KNOBBY APPEARANCE; BARK DARK BROWN, SMOOTH TO SLIGHTLY FISSURED, INNER BARK GREEN; SHRUB TO SMALL TREE; MOIST FORESTS TO HIGHER ELEVATIONS

PALICOUREA RIPARIA(AKA P. CROCEOIDES- **PALRIP**) LVS OPP, SIMPLE, LANCEOLATE TO OBLONG, ACCUMINATE APEX, CUNNEATE TO OBTUSE BASE, DOMATIA @ MIDRIB & 2° JUNCTION, 4.5-24CM, MARGIN +/- THICKENED & REVOLUTE, STIPULES WITH 2 LOBES,

CONNATE & FORMING SHEATH 2MM AROUND NODE (APPEARING AS 4 STIPULES/NOE), THIN, TRIANGULAR, 1-6MM, INTERPETIOLAR; FLRS RED, CALYX RED TO ORANGE, IN PANICULATE, PYRAMIDAL RACEME; BARK GRAY, SMOOTH, INNER BARK GREEN; SHRUB TO TREE; WET-MOIST FORESTS, THICKETS AND EDGES

PSYCHOTRIA BERTEROANA (PSYBER) LVS OPP, SIMPLE, ELLIPTIC TO OBOVATE-ELLIPTIC, 2° VENATION 13-20 PAIRS, SLIGHTLY PUBESCENT ON ABAXIAL SIDE, 7-21CM, MARGIN ENTIRE, INTRAPETIOLAR STIPULES, STIPULES DIVIDED NEARLY TO BASE; SHRUB; ABUNDANT IN MID-ELEVATION MOUNTAIN FORESTS

PSYCHOTRIA DEFLEXA (PSYBRA) LVS OPP, SIMPLE, OBLONG-LANCEOLATE TO OVATE-LANCEOLATE, MIDVEIN SOMETIMES PURPLISH, LVS 5-15CM, MARGIN ENTIRE, PETIOLE 3-10MM, INTRAPETIOLAR STIPULES, STIPULES DIVIDED NEARLY TO BASE, 2-5MM; OFTEN WITH VIBRANT BLUE FRUITS; GREEN STEMS PERSISTENT, STEMS AND BRANCHES SMOOTH; SHRUB; MOUNTAIN FORESTS IN MOIST DISTRICTS, MID-HIGH ELEVATIONS

PSYCHOTRIA GRANDIS (PSYGRA) LVS OPP, SIMPLE, GLABROUS, OBLONG, OBOVATE, OR OBLANCEOLATE, CONSPICUOUS 2°, 12-15 PAIRS, LVS 15-35CM, LFLTS 5-10CM, MARGIN ENTIRE, PETIOLE SHORT OR SUBSESSILE; GREEN STEMS PERSISTENT, QUADRANGULAR SHRUB TO SMALL TREE, LARGE UNITED KEEL W/ FLESHY POINTED STIPULE, INTRAPETIOLAR; FORESTS AND WOODED HILLS IN WET/MOIST DISTRICTS;

GENIPA AMERICANA (GENAM) LVS OPP, SIMPLE, OBOVATE TO OBLONG, SHORT ACCUMINATE APEX, 11-20 LATERAL NERVES (SOMETIMES WITH SILKY HAIRS), SLIGHTLY DISTALLY CURVED, LVS 11-28CM, MARGIN +/- ENTIRE, MAYBE SLIGHTLY UNDULATE, PETIOLE SHORT & STOUT, NEARLY SESSILE, TRIANGULAR STIPULES TO 1.5CM, DENSE ABAXIAL, INTERPETIOLAR, LVS CLUSTERED AT ENDS OF BRANCHES; OFTEN W/ ELLIPTIC, BROWN, FLESHY FRUITS THAT OXIDIZE BLUE WHEN YOUNG; TWIGS STOUT, W/ CLOSE RINGED NODES; BARK SMOOTH GRAY AND THICK; TREE; MOIST TO WET FORESTS TO HIGHER ELEVATIONS

#### RUTACEAE

ZANTHOXYLUM MARTINICENSE (ZANMAR) LVS ALT, COMPOUND, ODD-PINNATE, OBLONG-ELLIPTIC TO OBLANCEOLATE, OBOVATE, ELLIPTIC, LF BASE INEQUILATERAL, HISPIDULOUS TWIGS & VEIN UNDERSIDES, LFLTS: 3-13CM; TREE UP TO 20 M, TRUNK W/ STOUT PYRAMIDAL OR CONICAL PRICKLES; WOODED HILLS, FOREST RIVERS & ARROYOS, LOWER-MID ELEVATION

#### SABIACEAE

MELIOSMA HERBERTII (MELHER) LVS ALT, SIMPLE, ELLIPTIC TO ELLIPTIC OBOVATE (USUALLY DISTALLY WIDEST), FEW 2°S, RETICULATE VEINED, ABAXIALLY PROMINENT, LVS 7.5-20CM, DARK GREEN, USUALLY CLUSTERED AT ENDS OF BRANCHES, MARGIN DENTATE WHEN YOUNG, PETIOLE SHORT, CHANNELED, PULVINUS, 1-4CM; BARK SLIGHTLY WARTY, GRAY; MEDIUM SIZED TREE LOWER ELEVATION FORESTS TWIGS WITH REDDISH-BROWN CORKY WARTS; LVS

#### SALICACEAE (FLACOURTIACEAE)

CASEARIA ARBOREA (CASSARB) LVS ALT, SIMPLE, LANCEOLATE, +/- ASYMMETRICAL BASE, ACCUMINATE DRIP TIP, ABAXIALLY HAIRY DIMINISHING W/ AGE, LVS 5-12CM, PELLUCID DOTTED, MARGIN SERRULATE, PETIOLE SHORT, HAIRY, YOUNG BRANCHES HAIRY, STIPULATE; FLOWERS IN LF AXILS; BARK LIGHT GRAY SMOOTHISH, MOTTLED; SHRUB TO TREE; THICKETS AND FORESTS

CASEARIA SYLVESTRIS (CASSYL) LVS ALT, SIMPLE, +/- LANCEOLATE, ASYMMETRICAL BASE, ACCUMINATE LF TIP, 6-14CM, TYPICALLY DROOPING, PELLUCID TO PUNCTATE DOTTED, MARGIN CRENATE TO SERRATE, PETIOLE THIN; FLRS CLUSTERED IN LF AXILS; BARK GRAY/BROWN, WARTY LENTICELS; COMMON IN MOIST COASTAL AREAS AND MIDDLE ELEVATIONS

HOMALIUM RACEMOSUM (**HOMRAC**) LVS ALT, SIMPLE, ELLIPTIC TO OBLONG, DOMATIA @ MIDRIB & 2° JUNCTION, LVS 5-15CM, MARGIN UNDULATE TO CRENATE, DENTATE, PETIOLE 3-13MM, LVS LIGHT GREEN TURNING YELLOW TO ORANGE IN CANOPY WITH AGE, ADAXIALLY SHINY, OFTEN CONFUSED W/ **CASSARB**; TWIGS SLIGHTLY ZIG-ZAGGED; BARK WHITE TO GRAY; TREE; WIDELY DISTRIBUTED, LOW TO HIGH ELEVATIONS

LAETIA PROCERA (**LAEPRO**) LVS ALT, SIMPLE, ELLIPTIC OBLONG, LONG ACCUMINATE TIP, UNEQUAL, +/- SUBCORDATE @ BASE, +/- TRANSLUCENT, 8-21CM, PELLUCID DOTTED MARGIN WAVY & FINELY SERRATED, LVS // FOR MOST OF LENGTH, PETIOLE 5-15MM, LVS ALT IN 2 ROWS ALONG BRANCH; BRANCHES SLIGHTLY HAIRY & ZIG-ZAGGED; BARK GRAY TO YELLOWISH LENTICELLED, ORANGE TO YELLOW INNER BARK W/ PINK DOTS ON SURFACE; SLENDER TREE; LUQUILLO MTS

#### SAPINDACEAE

MATAYBA DOMINGENSIS (**MATDOM**) LVS ALT, COMPOUND, 2-8 SUB-OPP LFLTS, ELLIPTIC TO OBOVATE, BLUNT APEX, RAISED 2° VEINS, CLOSELY SPACED, LVS 15-20 CM, LFLTS 4-8CM, STIFF, PELLUCID-PUNCTATE, PETIOLE SHORT, KNOBBY PETIOLULE; TWIGS REDDISH-BROWN & HAIRY WHEN YOUNG; BARK BLACK/DARK BROWN, SMOOTH, INNER BARK REDDISH-BROWN, TRUNK OFTEN BUTTRESSED & TWISTED; TREE, SEEDLINGS WITH "SNAGGLE-TOOTH" LVS; TRANSITION FORESTS B/T LOWER AND UPPER MTS

#### SAPOTACEAE

MANILKARA BIDENTATA (**MANBID**) LVS ALT, SIMPLE, WHITE LATEX, CORIACEOUS, THICK, USUALLY OBLANCEOLATE, ABRUPTLY SHORT ACCUMINATE TO NOTCHED APEX, PROMINENT MIDRIB, MANY TIGHTLY PACKED 2°S, +/- PERP. TO MIDRIB, MARGIN ENTIRE, LVS 6-30CM, OCCASIONALLY TURNING RED WITH AGE, COMMONLY HAVING SOOTY MOLD, PETIOLE 1.5-4CM; "CANDELABRA" BRANCHING; BARK THICK, BROWN, FISSURED & SCALY, INNER BARK PINK; LARGE TREE; WET TO MOIST FORESTS, LOWER TO MIDDLE ELEVATIONS

MICROPHOLIS GUYANENSIS (M. CHRYSOPHYLLOIDES- **MIRCHR**) LVS ALT, SIMPLE, WHITE LATEX, ELLIPTIC TO OBOVATE, ABRUPTLY ACCUMINATE APEX, PROMINENT MIDRIB, 2°S +/- //, ≤1MM APART, USUALLY OBSCURED BY HAIRS, ABAXIAL SURFACE W/ DENSE SILKY BRONZE PUBESCENCE, LVS 3-15CM, MARGIN ENTIRE, PETIOLE TO 1CM; YOUNG TWIGS HAIRY; TREE; UPPER FORESTS

MICROPHOLIS GARCINIFOLIA (**MIRGAR**) LVS ALT, SIMPLE, WHITE LATEX, ELLIPTIC TO OBLONG ELLIPTIC, ROUNDED APEX, SOMETIMES W/ APICAL NOTCH PROMINENT MIDRIB, 2°S +/- //, ≤1MM APART, USUALLY VISIBLE, LVS 3-12CM, GLABRATE, MARGIN SLIGHTLY REVOLUTE, PETIOLE ~1.5CM, BROWN, HAIRY; TRUNK BUTTRESSED IN MATURITY; BARK DARK BROWN OR GRAY, SLIGHTLY FISSURED WITH AGE, REDDISH-BROWN INNER BARK; TREE; EASTERN MTS, HIGHER ELEVATION FORESTS

#### SIMAROUBACEAE

SIMAROUBA TULAE (**SIMTUL**) LVS ALT, COMPOUND, EVEN-PINNATE; LFLTS ALTERNATE, OBLONG TO ELLIPTIC, 2° VEINS INDISTINCT, SHINY DARK GREEN, LVS 15-35CM, LFLTS 5-10CM, MARGIN ENTIRE, SLIGHTLY REVOLUTE, PETIOLULE 2-5MM, FURROWED, REDDISH TWIGS; FLRS PINK; SHRUB TO TREE; MOUNTAIN FORESTS

#### THYMELACEAE

DAPHNOPSIS PHILIPPIANA (**DAPPHI**) LVS APPEARING OPP OR WHORLED, SIMPLE, CORIACEOUS, CLUSTERED AT ENDS OF BRANCHES, APPEARING FIBROUS/PAPER-LIKE WHEN TORN, ABAXIAL BRUISING UNDER FINGERNAIL, ELLIPTIC TO OBLANCEOLATE, COMMONLY DISTALLY WIDER, ADAXIAL VENATION CONSPICUOUS, LVS 3-14CM, MARGIN ENTIRE, LF TIP CURLED DOWN, PETIOLE 3-7MM, CURLY; TWIGS BRANCHING EQUALLY IN 2'S OR 3'S; BARK THIN AND GRAY, SLIGHTLY FISSURED; SHRUB TO SMALL TREE MOUNTAIN FORESTS

#### URTICACEAE (CECROPIACEAE)

CECROPIA SCHREBERIANA (**CECSCH**) LVS ALT, 7-11 LARGE PALMATE LOBES, APPEARING PELTATE, PALMATELY VEINED, 2° VEINS //, LVS 30-50CM, DEPRESSED B/T MAIN VEINS LONG, ABAXIAL SURFACE W/ WHITE, DENSE APPRESSED HAIRS, PETIOLE STOUT, RIBBED, UP TO 30 CM; BARK SMOOTH, BEIGE/GRAY, APPEARING LIGHT; TRUNK WITH CIRCUMFLUENT LF SCARS, OFTEN W/ PROP ROOTS, HOLLOW SECTIONED TRUNK; TREE; MOIST, DISTURBED AREAS, ASCENDING TO HIGH ELEVATIONS

VERBENACEAE

TECTONA GRANDIS (**TECGRA**) LVS OPP, SIMPLE, BROADLY ELLIPTIC, SMALL ACCUMINATE APEX, 9-15 PAIRS OF LATERAL NERVES, LVS 11-95 CM, MARGIN ENTIRE, PETIOLE SHORT, SLIGHTLY WINGED, CLASPING, LVS SCALY & PUCKERED IN APPEARANCE, LVS HAVE REDDISH JUICE WHEN CRUSHED; TWIGS QUADRANGULAR; FLRS LARGE PANICLED CYME; BARK LIGHT BROWN, SOFT & FIBROUS, APPEARING ALMOST ROTTEN; LARGE TREE; NATURALIZED WHEREVER PREVIOUSLY GROWN FOR TIMBER

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