



AMAZING AMAZON ELEVEN

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NOTE: Updated from Duke, JA, Bogenschutz-Godwin, MJ, DuCellier, J and Duke, PA. 2002.
CRC Handbook of Medicinal Plants. 2nd. Ed. CRC Press, Boca Raton, FL. 936 pp.

©CRC Press, 2002. Dr. Duke is completing a compilation of some 200-500 data sheets for a computerized
CRC Ed. 3 (Latin American Herbs).

INTRODUCTION

The Amazon region is at once the most species-rich forested area in the world and the least studied, by primitive and modern man alike. Among this diverse region are thousands of medicinal species, some with a long traditional history, orally handed down from generation to generation. Some have long published histories as medicinal species; others do not, but their reputation is growing. Still many medicinal species, yet unknown to science, remain to be discovered there in the beautiful rain forest.

In this booklet are short, truncated information summaries on just 11 of them. Eleven of some 500 on which I am compiling data for an upcoming Amazon edition of my CRC Handbook of Medicinal Herbs (2002). These summaries have been truncated so each fits on one or two pages. I'll send complete summaries on individual species or others in my collection via e-mail to those requesting. The species summarized here are being put to good use by Amazon Herb Company, harvested sustainably from Latin America, with a percentage of profits reverting to the rain forest. I am pleased to discuss these in hopes that my efforts will help save the rain forest and its myriads of medicinal products for future generations of Amazonians and those outsiders like myself who have come to believe that these natural medicines are often better than the more expensive pharmaceuticals.

Jim Duke, Jan. 2006

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Phytochemical Database
<http://www.ars-grin.gov/duke>

BURITI: MORICHE PALM (*Mauritia flexuosa* L.f.) ++

The Buriti palm is an elegant tree growing throughout the southern Amazon basin whose trunk can reach more than 100 feet high. It has large leaves forming a rounded crown, yellowish flowers, and an orange fruit concealing a hard, oval edible nut.

TBC [[aK 3; C3; A 3 + 3; G (3)s3]]

Ill.: p 44; MPB ARECACEAE

SYN.: *Mauritia minor* Burret; *Mauritia setigera* Griseb. & H. Wendl.; *Mauritia vinifera* Mart.

NOTES (MORICHE PALM): The town of Iquitos is said to consume between 12 and 20 tons fruits per month. Egg (EGG), Pio Correa (PIO) and Rutter (RAR) and Soukup (SOU) also recite many common names, and many ethnobotanical uses, but no specific medicinal uses. (EGG; RAR). Mariath et al (1989) state that the oily fraction 10 times more beta-carotene than red-palm oil. Daily supplementation with an amount corresponding to 134 micrograms retinol equivalent over 20 d showed that this food can reverse clinical xerophthalmia and restore liver reserves of the vitamin. (X2718919).

COMMON NAMES (MORICHE PALM): Áchu (Aguaruna; Peru; EGG; SOU); Achua (Peru; EGG; SOU); Achnal (Peru; EGG; RAR; SOU); Aeta (Peru; RAR); Aguachi (Peru; EGG); Aguaje (Peru; DAV; SAR); Aguashi (Peru; EGG); Ahuaque (Peru; EGG); Ahuashi (Peru; EGG; RAR); Banin (Cashibo; Peru; EGG; SOU); Binón (Pano; Shipibo/Conibo; Peru; EGG; RAR); Binun (Cashibo; Peru; EGG; RAR); Bority (Brazil; PIO); Buriti (Brazil; Col.; MPB; PIO; SAR); Buriti do Brejo (Sp.; POR); Buritisol (Brazil; Peru; EGG; RAR); Buritizeiro (Sp.; POR); Burity (Peru; RAR); Burity de Brejo (Brazil; RAR); Carandaguaçu (Brazil; POR); Carandaiguaçu (Brazil; POR) Cananguacha (Peru; EGG); Cananguacho (Peru; EGG); Cananguche (Col.; Peru; EGG; POR; SAR); Carandá Guassú (Bol.; Brazil; Chiriguano; DLZ; PIO); Carandáhy Guassú (Bol.; Brazil; Guarayu; DLZ; PIO; POR); Chag (Maku; SAR); Chomiya (Col.; POR); Chunuyo (Bora; SAR); Coqueiro-Buriti (Sp.; POR); Coqueiro Burity (Brazil; PIO); Gui-nê'-na (Huitoto; SAR); Gui-nê-na-kö'-nê--kö (Huitoto; SAR); Ite (Peru; RAR); Ite Palm (Guyana; USN); Kinema (Huitoto; Peru; EGG); Marity (Peru; SOU); Maro (Culina; Peru; EGG; RAR); Mariti (Peru; EGG); Mauricie (Fr.; POR); Mauricier (Fr.; POR); *Mauritia*-Palme (Ger.; POR); Miriti (Brazil; Col.; Peru; EGG; MPB; SAR); Morete

(Peru; Quechua; RAR); Morete Palm (Eng.; USN); Moriche (Col.;Peru; Ven.; DAV; POR); Morichepalme (Ger.; USN); Mority (Brazil; PIO); Moritz-Palme (Ger.; POR); Muriti (Peru; EGG); Murity (Brazil; PIO); Muritizeiro (Sp.; POR); Nê (Barasana; SAR); Palma Ita (It.; POR); Palma Miriti (It.; POR); Palma Real (Sp.; PIO); Palmeira-dos-Brejos (Port.; POR); Palmier Bâche (Fr. Guiana; POR); Rren (Makuna; SAR); Tree of Life (Eng.; USN); Vinon (Amahuaca; Peru; Shipibo; EGG; RAR); Wachori (Candoshi; Peru; EGG); Xonuuña (Ocaina; Peru; EGG); Yurumabrot (Ger.; USN); Nscn = No Standardized Common Name)

ACTIVITIES (MORICHE PALM): Emollient (f; MPB); Tonic (f; MPB; SAR)

INDICATIONS (MORICHE PALM): Cold (f; SAR); Debility (f; SAR); Flu (f; SAR); Ophthalmia (1; X2718919); Senility (f; SAR); Xerophthalmia (12; X2718919)

DOSAGES (MORICHE PALM): FNFF = !!. Like many palms this yields many edible products. Fruits consumed widely in Amazonias; juice from inflorescence (with 92.7% sucrose, 2.3% reducing sugars) tapped and consumed, or converted to sugar or wine. Palm cabbage also edible. Starch made from trunks.also fallen trunks yield the edible palm grub called the “suri” (*Rhynchophorus palmarum*). I have eaten suri raw. They are a challenge but I have eaten dozens so; cooked, they are a great treat; better than fried oysters. (DAV; DLZ; EGG)

- Brazilians add leaves to bath water as emollient (MPB).
- Brazilians consider the juice from young stems tonic (MPB).
- Colombians make a chicha from the fruits deemed useful for strengthening the weak, because of old age. It is deemed efficacious in severe colds and influenza (SAR).

NATURAL HISTORY (MORICHE PALM): Duke coined the word suriculture ca 1992 for the cultivation of what Peruvians call “suri”, grubs or larvae of the palm beetle (*Rhynchophorus palmarum*).

EXTRACTS (MORICHE PALM): Mariath et al (1989) state that the oily fraction contains 10 times more beta-carotene than red-palm oil, deemed one of the better sources of beta-carotene.

CACAO (Cuba) "Kakao" (HAITI); (*Theobroma cacao* L.) ++

Cocoa cultivation began by Mayan tribes in Central America ca. 1500 BC. Mayas, Aztec and Inca attributed divine origin to cocoa tree. They were even used as currency and a "sacred" beverage called "chocolatl" was consumed from golden cups.

Ill.: p 134 CR2 p. 343, L&W; p. 325 TRA; p. 353 Vol.5, PIO FAM.: STERCULIACEAE

INDICATIONS (CACAO): ADD (1; DAD); Adenopathy (f; HH2); Alopecia (f; CRC); Angina (1; BOW); Asthma (1; APA; DAV); Bacteria (1; X11759010); Bite (f; DAD); Bleeding (f; IED); Bronchosis (f1; APA; SOU); Burn (f; APA; IED; JFM); Cancer (f1; JFM; X15117546); Cancer, colon (1; X11741742); Cancer, liver (1; JFM; X15117546); Cancer, lung (1; X12609709); Cancer, pancreas (1; X12169385); Cancer, thyroid (1; X12609709); Cardiopathy (1; X15190043; X12944249); Caries (1; X15154923); Cataract (1; X14709774); Cellulite (1; BRU; FNF; HAD); Chafing (f; APA; FEL); Childbirth (f; CRC; DAD; JFM); Cold (1; APA); Congestion (1; APA); Convulsion (f; SOU); Cough (f; APA; CRC; DAD; EGG; SOU); Cystosis (f; KOM; PHR; PH2); Debility (1; TRA); Depression (1; FNF; AT7(5):121); Dermatitis (f; EGG; IED; ULW); Diabetes (f1; KOM; PHR; PH2; JN133:3149); Diarrhea (1; APA; KOM; PHR; PH2); Dysentery (f; EGG); Eczema (f; DAV); Enterosis (1; APA; PHR; PH2); Enuresis (f; SOU); Eruptions (f; JFM); Fever (f; APA; CRC); Flu (1; APA); Hemorrhoids (f1; CRC; EGG; RAR); Hepatosis (f; PHR; PH2); High Blood Pressure (1; BOW; EFS; GMH); Hyperglycemia (1; JN133:3149); Hyperkinesis (1; DAD); Infection (1; APA; PHR); Inflammation (f1; EGG; X12097654); Itch (f; EGG); Laryngosis (f; SOU); Malaria (f; CRC); Mastalgia (f; APA; CRC; JFM); Myalgia (f; EGG); Nephrosis (f; AHL; CRC; PHR; PH2); Nipple (f; FEL); Obesity (f; BRU; FNF; HAD); Ophthalmia (f; CRC; DAD); Parturition (f; APA); Pertussis (f; EGG; RAR; SOU); Pregnancy (f; APA); Proctosis (f; JFM); Pulmonosis (f; SOU); Rheumatism (f; CRC); Scabies (f; DAV); Screwworm (f; JFM); Snakebite (f; CRC); Streptococcus (1; X15154923); Thrombosis (1; X15190043; X12944249); Thyropathy (f; HH2); Tumor (1; CRC); Vaginitis (f; JFM); Worm (f; CRC); Wound (f; DAD; JFM; ULW); Wrinkles (f; APA; CRC; DAD)

DOSAGES (CACAO): FNFF = !!! Toasted seeds the source of chocolate, cocoa and cocoa butter; pulp around the seeds sweet and delectable. (FAC, JAD) 1-2 tsp cocoa/cup water a/o milk (APA)

- Colombians use the leaf tea as a diuretic cardiogenic (DAD).
- Dominicans suggest the diuretic theobromine in leaves is good for kidney problems (AHL).
- Haitians use seed decoction as diuretic stimulant (VOD).
- Kuna Indians of Panama use flower infusion for conjunctivitis, especially bot-fly of the eye (IED).
- Latinos speculate that massage with cocoa butter may improve cellulitis and wrinkles (HAD).
- Mexicans apply young leaves to wounds to prevent infection (JFM).
- Peruvians recommend cocoa butter applied topically to hemorrhoids and myalgia (EGG).
- Peruvians suggest chocolate rice pudding with cinnamon as lactagogue (EGG); cacao shells fed to cattle to increase milk flow and butter and fat content (NAD).
- Peruvians suggest fruit husk decoction for convulsions, cough, dysentery and pertussis (EGG).
- Venezuelans apply seed oil to burns, cracked lips, eruptions, sore breasts, wounds, etc., inserting cocoa butter in the rectum and vagina to relieve irritations (JFM).

EXTRACTS (CACAO): Theophylline is present in traces only in unroasted beans, disappearing in roasting. (HHB) Enzymes like hydrolase, lipase, and proteinase are deactivated in roasting. If caffeine from coffee works for hyperkinesis (ADD), a big if, why not caffeine from chocolate, or tea, both of which may have even more health benefits, via their catechin-tannins. Milk chocolate may have 2000 ppm caffeine, bitter chocolate 4,000 ppm (PH2). Cocoa powder can stimulate insulin production an average 28%, almost 50% more than strawberry flavor. (JN133:3149)

Dark (but not white) chocolate inhibited collagen-induced platelet aggregation in platelet rich plasma, possibly helping prevent cardiovascular and thromboembolic diseases. X12944249.

Cocoa oil provides good protection against *Simulium damnosum* X12616944.

CAMU-CAMU (*Myrciaria dubia* (H.B.K.) McVaugh) + + +

Camu-camu is a small tree that thrives in lush rain forest soil enriched by the floodwaters of the Amazon Basin. The fruit of the Camu-camu is the world's most concentrated source of naturally occurring vitamin C. Anthropologist Antonio Brack Egg (1999) mentions traditional usage for constipation, flu (grippe), GI disturbances, and rheumatism.

Nearly 95 percent of people in the United States are not getting desirable intakes of vitamin E from foods and beverages. More than half aren't getting enough magnesium, about 40 percent aren't getting enough vitamin A, and nearly one-third aren't getting desirable intakes of vitamin C from the foods and beverages in their diets." (USDA; Sept. 29, 2005. www.ars.usda.gov/is/pr).

Ill.: Fig 163 DAV; FAM.: MYRTACEAE

NOTES: Note that most of the uses are entered because of the high vitamin C content (1; FNF). Cyanidin-3-glucoside, limonene, alpha-pinene, with which phytochemicals Camu-camu is also well endowed.

ACTIVITIES (CAMU-CAMU): Acidulant (1; ARC); Aldose-Reductase-Inhibitor (1; X15636180); Allergenic (1; FNF; M&R523); Analgesic (1; FNF; SYN-X); Anorectic (1; FNF; X15862904); Antiacne (1; FNF; JAR12:99); Antiaggregant (1; FNF; SYN-X); Antiaging 1; ABS SYN-X); Antiarthritic (1; FNF; WER); Antiasthmatic (1; FNF; WER); Antiatherosclerotic PAM; `Anticancer (1; FNF; X16302773); Anticataract 350 mg/day WER; AntiCrohn's (1; FNF; M29); Antidepressant (1; FNF; WER); Antidiabetic (1; FNF; SYN-X); Antidote (Aluminum)(1; FNF; EMP6:189); Antidote (Cadmium) (1; FNF; DAS); Antidote (Lead) (1; FNF; DAS); Antidote (Paraquat) (1; FNF; MAR); Antieczemic (1; FNF; WER); Antiedemic (1; DAS; FNF); Antifeedant (1; FNF; JAF45:3276); Antiflu (1; FNF; EMP5:195); Antihepatitic (1; DAS; FNF); Antiherpetic (1; FNF; WER); Antihistaminic (1; FNF; WER); Antiinflammatory (1; FNF; PAM); Antimutagenic (1; EMP6:235; FNF); Antineuramidase (1; FNF; X634178); Antinitrosic (1; FNF; MAR); Antioxidant (1; FNF; X16302773); Antipneumonic (1; FNF; X16248573); Antiradicular (1; FNF; SYN-X); Antiscorbutic (1; FNF; MAR); Antiseptic (1; FNF; MAR); Antistaphylococcic (1; FNF; X16248573); Antitumor (Lung) (1; FNF; NR54:S71); Antiulcer (1; FNF; WER); Antiviral (1; FNF; WER); Apoptotic (1; BO2; FNF; X12921557); Bactericide (1; FNF; DAS); Chemopreventive (1; FNF; X 8841165); Collagenic (1;BO2; FNF); Cytotoxic (1; FNF; X12921557); Detoxicant (1; FNF); Diuretic (1; FNF); Expectorant (1; FNF; MIK); Febrifuge (1; FNF);

EMP6:189); beta-Glucuronidase-Inhibitor (1; BO2; FNF); Hemostat (1; DAS; FNF); Hepatoprotective (1; EMP6:189; FNF); Histaminic (1; FNF; X15862904); Hypocholesterolemic (1; DAS; FNF); Hypoglycemic (1; FNF; SYN-X); Hypotensive (1; SNE137:292); Immunostimulant (1; SYN-X); Insecticide (1; FNF; JAF50:4576; Insectifuge (1; FNF; HH3); Inteferonogenic (1; FNF; PAM); Lipolytic (1; FNF; X15862904); Lithogenic (1; DAS; FNF); Mucolytic (1; FNF; MAR); p450(2B1)-Inhibitor (1; FNF; X9242356); Sedative (1; FNF; LRN-Jun90); Spasmogenic (1; FNF; PR14:623; Spasmolytic (1; FNF; PR14:623; Tranquilizer (1; FNF; LRN-Jun90); Transdermal (1; FNF; X7199340; Uricosuric (1; DAS; FNF); Urinary-Acidulant (1; FNF; M29); Viricide (1; DAS; FNF) Vulnerary (1; FNF; PAM)

INDICATIONS (CAMU-CAMU): Arthrosis (1; FNF; WER); Asthma (1; FNF; PAM; X15598576); Atherosclerosis (1; FNF; PAM); Bacteria (1; FNF; DAS); Bleeding (1; DAS; FNF); Cancer (1; FNF; X12921557); Cancer, liver (1; FNF; X12688534); Cancer, lung (1; FNF; X14582701) Cancer, stomach (1; FNF; X12921557); Canker (1; FNF); Cardiopathy (1; X16302773); Cataract (1; FNF; WER); Constipation (f1; EGG; FMF); Cramp (1; FNF; PR14:623; Crohn's (1; FNF; M29); Cold (1; FNF); Depression (1; FNF; WER) Decubitis (1; FNF; MAR); Diabetes (1; FNF; SYN-X; X16302773); Eczema (1; FNF; WER); Edema (1; DAS; FNF); Encephalitis (1; DAS; FNF); Enterosis (f; EGG); Fever (1; FNF; EMP6:189); Flu (f1; EGG; FNF); Fistula (1; FNF; PAM); Gastrosis (f1; EGG; FNF; X12921557); Gingivitis (1; FNF); Glaucoma (1; FNF); Gout (1; FNF); Grippe (f1; EGG; FNF); Hepatosis (1; DAS; FNF; X12688534); Herpes (1; FNF); High Blood Pressure (1; SNE137:292); High Cholesterol (1; DAS; FNF); Hyperglycemia (1; FNF; SYN-X); Immune-Depression (1; SYN-X); Infection (1; FNF; MAR); Infertility (1; FNF; WER); Inflammation (1; FNF; PAM; X15598576); Insomnia (1; FNF; LRN-Jun90); Leprosy (1; FNF; MAR); Measles (1; DAS; FNF); Melanoma (1; FNF; X14582701) Metastasis (1; FNF; X14582701); Migraine (1; FNF; M29); Obesity (1; FNF; WER; X16302773; X15862904); Orchitis (1; DAS; FNF); Osteoarthritis (1; FNF; WER); Osteoporosis (1; FNF; PAM); Pain (1; SYN-X); Parkinson's (1; FNF; WER); Parotosis (1; DAS; FNF); Periodontosis (1; FNF; WER); Pneumonia (1; FNF; PAM); Poliomyelitis (1; DAS; FNF); Pulmonosis (1; FNF; NR54:S71; X14582701); Rheumatism (f; EGG); Senility (1; FNF); Shingles (1; DAS; FNF); Sore (1; FNF; PAM); Spasm (1; FNF; PR14:623); Staphylococcus (1; FNF; X16248573); Syndrome-X (1; FNF; SYN-X); Ulcer (1; FNF; WER); Virus (1; FNF; WER); Water Retention (1; FNF); Wound (f1; EGG; FNF; PAM)

DOSAGES (CAMU-CAMU): FNFF = !!. 3-4 fruits providing 300-400 mg vit. C. (JAD). Dosages below based solely on vit. C recommendations and assuming 1 fruit delivers an average 100 mg. vit. C.

- 50-100 fruits for pain
- 4-20 fruits a day for aging
- 2 1/2 fruits a day for arthritis
- 2 1/2 fruits a day plus coffee for asthma
- 3 fruits a day for cardioprotection
- 5 fruits a day for the common cold
- 1 fruit a day for Crohn's disease
- 9-12 fruits a day for eczema
- 5-60 fruits a day for flu
- 5 fruits a day for glaucoma
- 3 fruits a day for high blood pressure
- 3 fruits a day for high cholesterol
- 8 fruits a day for obesity
- 2 fruits a day for osteoporosis
- 5 fruits a day for Parkinson's
- Peruvians drink the fruit juice straight or with water for enterosis, gastrostis and flu (EGG).
- Peruvians poultice the bark onto wounds (EGG).
- Peruvians take the bark decoction with the fruit juice and rum for rheumatism (EGG).

EXTRACTS (CAMU-CAMU): Most FNF entries above based on the fact that Camu-camu is the richest edible source of vitamin C. The recent discovery of ellagic-acid brings even more to the food famacy table.

ANTHOCYANINS 250-750 FR X16302773
ASCORBIC-ACID 20,890-499,000 FR FNF
CAMPHENE (0.20% HS) FR JAF48:1263
CAR-3-ENE TR FR JAF48:1263
BETA-CAROTENE FR FNF
BETA-CARYOPHYLLENE (4.61% HS) FR JAF48:1263
CYANIDIN-3-GLUCOSIDE 200-675 FR X16302773
P-CYMENE (0.31% HS) FR JAF48:1263
DELPHINIDIN-3-GLUCOSIDE 10-40 FR X16302773
ELLAGIC-ACID LF X15636180
EUCALYPTOL TR FR JAF48:1263
ALPHA-FENCHENE (0.09% HS) FR JAF48:1263
FENCHOL TR FR JAF48:1263
HUMULENE TR FR JAF48:1263
D-LIMONENE (23.72% HS) FR JAF48:1263
4-O-methylellagic-acid LF X15636180
BETA-MYRCENE (1.11% HS) FR JAF48:1263
ALPHA-PHELLANDRENE (0.27% HS) FR JAF48:1263

Depression: antidepressant activities for Camu-camu. There's the anti-anxiety calcium, 4 antidepressant compounds, 4 immunostimulants, and 1 serotonergic compound. In the headspace volatiles, you find 7 antiacetylcholinesterase volatiles, transdermally active, many active when inhaled, which keep the acetylcholine in the synapses functioning. (cineole story)

SAD:
TOOTHACHE:

TENNIS ELBOW:

VIRUS: 2 antitherpetic, 1 antishingle and 6 antiviral, phytochemicals, but no EBV

ANTHOCYANINS 300-9000 ppm

CAMPHENE (0.20% HS) Antilithic; JBH; Antioxidant; Expectorant; Hypocholesterolemic JBH

BETA-CARYOPHYLLENE (4.61% HS) Analgesic; Antiacne Antiasthmatic; Anticariogenic; Antiedemic; Antiinflammatory; Antionychyotic; Antistaphylococcic; Antistreptococcic; Antitumor; Antiulcer; Bactericide; Candidicide Fungicide; Gastroprotective Sedative; Spasmolytic

***1,8-CINEOLE:** Acaricide; Anesthetic; Antiacetylcholinesterase IC50=41 ug/ml; Antiallergic; Antibronchitic Anticariogenic; Anticatarrh; Anticholinesterase IC50=50-70, etc., etc.

CYANIDIN-3-O-GLUCOSIDE 264-8,055 ppm Antidiabetic; Antihyperglycemic; Antihyperinsulenemic; Antiinflammatory; Antiobesity; Antioxidant Antitumor, breast (IC25=158ug/ml), Antitumor, colon IC40=158 ug/ml, Antitumor, lung IC50=158 ug ml; COX-2-Inhibitor IC59= 100 ug/ml; Insulinogenic; Lipolytic; Secretagogue

P-CYMENE (0.31% HS) Analgesic; Antiacetylcholinesterase IC40=1.2 mM; Antiflu; Antirheumatologic Bactericide; Fungicide; Laxative ZEB; Sedative ZEB; Trichomonicide LD100=50 ug/ml Viricide

DELPHINIDIN-3-GLUCOSIDE 13-460 ppm Antioxidant

ELLAGIC-ACID: ACE-Inhibitor; Aldose-Reductase-Inhibitor IC50=0.2 uM; Antiaflatoxin; Antianaphylactic; Antibacillus MIC=0.63 mg/ml; Anticancer (cervix), etc., etc.

HUMULENE: Antitumor JNP55: 999

LIMONENE (23.72% HS) Asthma; Cancer; Maculitis; Obesity

“Camunes” and Arthritis; and the Raisin Arthritis Treatment

Camu-Camu and Flu: 4-analgesic/anesthetic; 8 antibacterials; 1 anticold, 2 antiflu, 2 antihistaminic; 4 antiinflammatories, 9 antioxidants; 6 antiseptics; 5 antivirals; 1 antitussive; 1 decongestant (cineole); 4 expectorant; 3 immuneboosters

BETA-MYRCENE (1.11% HS) Analgesic; Anticonvulsant; Antimutagenic; Antioxidant; Bactericide; Chemopreventive Myorelaxant 100-200 mg/kg Spasmolytic

ALPHA-PHELLANDRENE (0.27% HS) Antistaphylococcic; Bactericide; Fungicide HH2; Laxative PJB1(1)

BETA-PHELLANDRENE (0.29% HS) FR JAF48:1263: Expectorant JBH; Fungicide HH2

ALPHA-PINENE (66.2% HS) Antiacne JAR12:99; Antiflu; Antiinflammatory 500mg/kg Antipneumonic; Antiseptic Antistaphylococcic; Antiviral; Bactericide; Cancer-Preventive; Expectorant, etc., etc.

BETA-PINENE (0.48% HS) Antiinflammatory; Antiseptic; Candidicide; etc., etc.

ALPHA-TERPINENE (0.11% HS) Acaricide Antiacetylcholinesterase IC50=1.0 mM Spasmolytic

GAMMA-TERPINENE (0.58% HS) Acaricide; Antiacetylcholinesterase IC23=1.2 mM Antioxidant, etc.

4-TERPINEOL (0.11% HS) Analgesic 10-100 ug/ml; Antiacne; Antiallergenic; Antiasthmatic, etc.

CAT'S CLAW (*Uncaria tomentosa* (Willd. ex Schult.) DC.) ++

A vine that grows into the canopy of the rain forest. Its name is derived from the hook-like thorns, resembling claws of a cat, that grow along the vine. Cat's Claw has been used medicinally for numerous health problems by many tribes of Peru for more than 2,000 years.

Ill. p 165 CR2 RUBIACEAE

NOTES (CAT'S CLAW): Some local taxonomists, students of the late Al Gentry, have taught the ACEER and NAPO affiliates to distinguish the species, the *guianensis* having strongly recurved "claws." Both species co-occur in various parts of Peru.

INDICATIONS (CAT'S CLAW): Allergy (1; APA; HH3); Alzheimer's (f1; MCK; RAI); Amyloidosis (1; MCK); Anxiety (f; MCK); Arrhythmia (1; X12546715); Arthrosis (f12; APA; HH3; LYM; 60P; X11950006); Ascites (1; HH3); Asthma (f; APA; LYM; MBC; PH2; VAD); Bleeding (f; MCK); Borrelia (12; LYM); Cancer (f1; APA; HH3; MPG; PH2; RAI; 60P); Cancer, breast (1; ISSN:0250-7005); Candidiasis (f; APA); Cardiopathy (f1; RAI; X14668978); Childbirth (f; MCK); Cirrhosis (f; LYM; MBC; MPG); Cold (f; RAI); Colic (f; MBC); Colitis (f; RAI); Crohn's (f; RAI); Cystosis (f; VAD); Debility (f; MCK); Depression (f; RAI); Dermatitis (f; HH3; LYM; MBC); Diabetes (f; VAD; 60P); Diverticulosis (f; RAI); Duodenitis (f; VAD); Dysentery (f1; LYM; RAI); Dysmenorrhea (f; MCK; PH2; VAD); Dyspepsia (f; APA); Edema (1; APA; HH3; LYM; SKY); Enteritis (f1; APA; RAI); Fever (f1; HH3; LYM; MCK); Flu (f; RAI); Gastritis (f1; APA; DAV; HH3); Gonorrhoea (f; RAI); Gout (1; JAD); Hemorrhoids (1; APA); Hepatitis (f; MPG); Herpes (f1; HH3; RAI); HIV (1; APA); High Blood Pressure (1; X14668978); High Cholesterol (1; LYM); IBS (f; RAI); Immune Dysfunction (1; APA; MPG; SKY); Impotence (f; MBC); Infection (1; MPG; HH3); Inflammation (f1; APA; LYM; MPG; RAI; SKY); Ischemia (1; X12546715); Leaky Gut (f1; RAI); Leukemia (f; RAI); Leukopenia (1; LYM; X12622460); Lyme (1; LYM); Lymphoma (1; RAI); Melanoma (1; APA); Metastasis (1; MBC); Myalgia (1; LYM); Nephrosis (f; MBC); Neuralgia (f; RAI); Neuroborreliosis (1; LYM); Neurodermatitis (f; HH3); Ostealgia (f; LYM; MCK); Osteoarthritis (f; VAD); Osteoporosis (12; MCK); Pain (f1; LYM; MBC); Parkinson's (1; MCK); Pneumonia (1; LYM); Prostatitis (1; APA; LYM; MBC); Rheumatism (f12; X11950006; MBC; MPG; RAI); Rhinovirus (1; HH3); Sarcoma (1; MPG); Shingles (f; RAI); Snakebite (f; MBC); Sore (f; MBC); Stomatitis (1; HH3); Stroke (f; RAI); Swelling (1; HH3); Thrombosis (1;

PH2); Ulcer (f1; APA; DAV; LYM; MCK; VAD); Urethrosis (f; MCK); VD (f; RAI); Virus (f1; MPG; HH3; RAI); Wound (f; LYM; HH3; RAI); Yeast (f; APA)

DOSAGES (CAT'S CLAW): FNFF = ? Not generally recognized as food. 1-2 500 mg bark capsules, 3 x day (APA); 20 g rt.bk/liter water (HH3). 1-2 500 mg capsules/ 3x/day (NH); 2 505 mg StX capsules/day (NH); 30 g powdered rt/800 ml water simmered to 500 ml (PH2). 20-60 mg StX; 1 tsp Decoction (SF); 1 cup decoction 2x/day (RAI); 2-4 ml tincture 2Xday (RAI) 1 g rt/cup tea 3x/day (SKY); 1-2 ml tincture 1-2 x/day (SKY). Fernando Cabieses seems to believe the folk contraceptive dosage; boiling 11-13 pounds root until it is reduced to 1 cup (pretty tricky).

- Ashaninka use for arthritis, asthma, bone ache, cancer, urinary inflammation, and to prevent conception and diseases.
- Bark decoction used to wash deep wounds, twice daily (MCK).
- Brazilian Yanomami take *U. guianensis* stem infusion for diarrhea and stomachache (MCK).
- Colombians take for dysentery and gonorrhea (RAI).
- Peruvians boil 2 tbsp bark in 1.5 l water, taking a half glass 3 x a day before meals (MPG).
- Peruvians suggest the herb for abscesses, arthritis, asthma, bleeding, blood disorders, bone ache, cancer, cirrhosis, dermatosis, diabetes, diarrhea, dysentery, dysmenorrhea, enterosis, fever, gastrosis, gonorrhea, herpes, HIV, immunodepression, inflammation, nephrosis, prostatitis, rheumatism, shingles, tumors, ulcer, urogenitosis, and wounds (RAI).
- Surinamese take for dysentery, enterosis, and wounds (RAI).

CHANCA PIEDRAS (Peru) PHYLLANTHUS (*Phyllanthus niruri* L.)

Chanca Piedra, also called Quebra Pedra, which literally means “stone breaker.” In the Amazon jungle, indigenous people have used Chanca Piedra for ages to help eliminate excess calculi formation.

TBC [[aK(2-3,5-6); C0; A(3); G(3) s3]]

III. PI 861 KAB; p. 153 v. IV PIO EUPHORBIACEAE

INDICATIONS (PHYLLANTHUS): Alopecia (f; SAR); Ameba (1; ZUL); Amenorrhea (f; RAI; 60P); Ascites (f; PH2); Bacteria (1; TRA); Bilioussness (f; JFM); Blackheads (f; JFM); Bleeding (f; MPG); Blennorrhagia (f; DAV); Bruise (f; MPG); Calculus (f; JFM; PIO); Cancer (1; JLH; KAB; MPI); Cancer, abdomen (f; JLH); Cancer, colon (f; JLH); Cancer, liver (f; RAI); Childbirth (f; PIO); Cholecystosis (f; RAI); Colic (f; DAV; JFM; PH2; WOI); Colitis (f; RAI); Conjunctivitis (f; HH3); Constipation (f; KAP; PH2; RAI); Cramp (1; MPI; PH2); Cystosis (f; PIO; RAI); Debility (f; HH3); Dermatitis (f; JFM; KAP); Diabetes (f; DAV; JFM; KAB; KEB; MPI; PH2); Diarrhea (f; PH2; WOI); Dropsy (f; DAV; MPI; SKJ); Dysentery (f; DAV; MPI; PH2; SKJ); Dyspepsia (f; MPI; WOI); Dysuria (f; JFM; KAP; PIO); Edema (f; JFM; KAP; MPI; SKJ); Enterosis (f; AHL; JFM; JLH); Escherichia (1; HH3); Fever (f; DAV; HHB; PH2); Flu (f; DAV; RAI); Fungus (1; MPI); Gallstone (f; HH3); Gangrene (f; MPG); Gas (f; DAV; RAI); Gastrositis (f; HHB; JFM; PH2; PIO); Gonorrhoea (f; HH3; MPI; SKJ); Gout (f1; JFM; MBC); Gravel (f; JFM; 60P); Hepatitis-B (= Interferon) (12; RAI); Hepatosis (f12; KEB; MPB; MPI; SKY); Herpes (1; HH3); High Blood Pressure (1; MBC; RAI; X8786163); High Cholesterol (1; 60P); HIV (1; MBC; RAI); Hyperuricemia (f; JFM); Infection (f1; MPG; MPI; PH2); Infertility (f; PH2); Itch (f; DAV; KAP); Jaundice (f12; DEP; HHB; HH3; KEB; MPI; PIO; RAI; SKY); Kidneystone (f1; RAI); Leukorrhoea (f; JFM); Leukemia (1; KAB; MPI); Malaria (f1; DAV; DEP; KAB; HH3; PH2; PIO; RAI); Menorrhagia (f; KAP; MPI); Micrococcus (1; RAI); Mycosis (1; MPI); Nephrosis (f; DAV; JFM; MBC; RAI; SAR); Oliguria (f1; RAI); Ophthalmia (f; KAP; MPI; PH2; WOI); Ovary (f; JFM); Pain (f; AHL; RAI); Parasites (1; ZUL); Pasteurella (1; RAI); Pimples (f; JFM); Prolapse (f; JFM); Prostatitis (f; DAV; RAI); Pulmonitis (f; MPG; 60P); Ringworm (1; ZUL); Scabies (1; DEP; KAB; PH2; ZUL); Snakebite (f; HH3); Sore (f; DEP; MPI; PH2; WOI); Spasm (f; RAI); Staphylococcus (1; HH3; RAI; 60P); Stomachache (f; BEJ; DAV; RAI); Bleeding (f; MPG); Stone (f; HH3; PIO); Swelling (f; KAB; MPI; SKJ); Tachycardia (f; PH2); Tenesmus (f; DAV); Tuberculosis (f; RAI); Tumor (f; JLH);

Ulcer (f1; JFM; RAI; SKJ; 60P); Urogenitosis (f; DEP; KAB; MPI; PH2); UTI (f; RAI; SKJ); Vaginosis (f; DAV); VD (f; JFM; KAB; HH3); Virus (1; HH3; KAB; PH2; TRA); Womb (f; JFM); Wound (f; PH2)

DOSAGES (PHYLLANTHUS): FNFF = X. Not considered a food. 3-6 g powdered herb (KAP). 14-28 ml tea (KAP). 2-6 ml extract (1:2) (KEB); 10 plants per liter water (PH2); 1-3 cups weekly for prevention, 3-4 cups/day to expel stones (RAI); 2-3 g capsule/tablet 2x/day (RAI); 900-2,700 mg pl powder/day/3 mos. (SKY)

- Amazonians use for alopecia, amenorrhea, cancer, colic, colitis, constipation, diabetes, dysentery, dyspepsia, edema, enterosis, fever, flu, gallstones, gas, gonorrhea, itch, jaundice, kidney stones, malaria, nephrosis, oliguria, pain, proctosis, spasms, stomachache, vaginitis, worms (DAV; SAR; RAI).
- Bahamans use for bacterial infection, cold, constipation, fever, flu, high blood sugar (RAI).
- Brazilians use for albuminuria, arthrosis, biliousness, bladderstones, cancer, catarrh, cholecystosis, colic, cystosis, diabetes, dyspepsia, dysuria, edema, enterosis, fever, flu, gallstones, gas, gastrosis, gonorrhea, gout, hepatosis, hypertension, hyperuricemia, inflammation, jaundice, kidney stones, malaria, nephrosis, obesity, oliguria, pain, proctosis, prostatitis, spasms, stomachache, uterosis, (MPB; PIO; RAI).
- Cubans use *P. niruri* for biliousness, diabetes, dysentery, fever, malaria, oliguria (AUS).
- French Guineans use for gastrosis in pregnancy (PIO).
- Haitians use for colic, colitis, dyspepsia, enterosis, fever, flu, gas, malaria, spasms, stomachache, oliguria (RAI).

EXTRACTS (PHYLLANTHUS): Alcoholic extracts bactericidal to *Escherichia coli* and *Micrococcus pyogenes*. (WOI). Lignans hepatoprotective in vitro (KEB). Aqueous extracts (with repandusinic acid A) inhibit HIV reverse transcriptase in vitro. Aqueous extracts comparable to tolbutamide as oral hypoglycemic (ZUL); LD50 dry aqueous whole plant extract 3,300 mg/kg ipr mus (HH3)

**JATOBA: BRAZILIAN COPAL "Curbaril" (CUBA) "Pois
Confiture" (HAITI) (*Hymenaea courbaril* L.)**

Jatoba is a very large canopy tree that grows up to 30 meters high. Jatoba has a long history of use by the indigenous tribes of the rain forest as well as in South American traditional medicine.

III.: f. 76 L&W CAESALPINIACEAE

ACTIVITIES (BRAZILIAN COPAL): Analgesic (f; IED; PDA); Antifeedant (f1; EGG); Antiinflammatory (1; RAI; X10715848); Antioxidant (1; RAI); Antiradicular (1; RAI); Antirheumatic (f; MPG); Antiseptic (f1; DAW; RAI); Antispasmodic (f; MPG); Antitumor (1; RAI; JNP65:11); Antitussive (f1; RAI; RAR); Astringent (f; MPB; RAR); Bactericide (1; MPG; RAI); Balsamic (f; MPB); Bechic (f; MPB); Candidicide (1; MPG; RAI); Carminative (f; VOD); CNS-Depressant (f; VOD); Cytotoxic (1; JNP65:11); Decogestant (f; RAI); Depurative (f; GMJ); Digestive (f; RAI); Diuretic (f; MPB; RAI); Expectorant (f; IED); Febrifuge (f; GMJ); Fungicide (f1; DAV; MPG; RAI); Hemostat (f; EGG; RAR); Hepatoprotective (f; RAI); Hypoglycemic (1; MPG; RAI); Insectifuge (f1; EGG); Insulinogenic (1; MPG); Laxative (f; DAW; RAI); 5-Lipoxygenase-inhibitor (1; X10715848); Molluscicide (1; RAI); Pectoral (f; MPB); Orexigenic (f; IED); Pectoral (f; PIO); Purgative (f; DAW; VOD); Refrigerant (f; PIO); Secretolytic (f; RAI); Sedative (f; DAW; VOD); Stimulant (f; PIO); Stomachic (f; IED); Sudorific (f; MPG); Tonic (f; MPB; PIO); Vermifuge (f; DAW; MPB; PIO; RAI; VOD); Vulnerary (f)

INDICATIONS (BRAZILIAN COPAL): Anemia (f; MPB); Anorexia (f; IED; MPG); Arthritis (f; DAW; VOD); Asthma (f; DAW; MOG; RAI; VOD); Athlete's foot (f; DAW; RAI); Bacillus (1; MPG; RAI); Bacteria (1; MPG); Beriberi (f; RAI); Bleeding (f; RAI; RAR); Bleenorrhagia (f; DAW; IED; MPB; PIO); Bronchitis (f; IED; MPB; PIO; RAI; VOD); Bruise (f; DAW; VOD); Bursitis (f; RAI); Cancer (1; JNP65:11); Candida (1; MPG); Cardiopathy (f; RAI); Catarrh (f; DAW); Childbirth (f; PDA); Colic (f; RAI); Cough (f; DAV; RAI; SOU; VOD); Cramp (f; VOD); Cystosis (f; DAV; RAI; RAR); Dermatoses (f; MPB; RAI); Diabetes (f1; MPG; RAI); Diarrhea (f; DAW; MPG; PDA; RAI); Dysentery (f; GMJ; RAI); Dysmenorrhea (f; RAI); Dyspepsia (f; IED; RAI; VOD); Emphysema (f; DAW; RAI; VOD); Enterosis (f; DAW; RAI); Escherichia (1; MPG; RAI); Fatigue (f; RAI); Fever (f; GMJ; RAI); Fracture (f; DAW; JFM; RAI); Fungus (f1; DAV; MPG); Gas (f; RAI; VOD); Gastrosis (f; DAW; GMJ; JFM; RAI); Headache (f; DAW); Hematuria (f; MPG; RAI); Hemoptysis (f; RAI); Hepatosis (f; DAV; RAR); High Blood Pressure (f; JFM); Hypoglycemia (f; RAI); Hysteria (f; JFM); Infection (f1; MPG; RAI);

Inflammation (1; X10715848); Laryngitis (f; IED); Malaria (f; DAW; JFM; RAI); Metrorrhagia (f; RAI); Myalgia (f; VOD); Mycosis (f1; DAV; MPG; RAI); Nephrosis (f; DAW; MPG; VOD); Oliguria (f; PIO; RAI); Onychyosis (1; RAI); Ophthalmia (f; RAI); Orchosis (f; RAI); Pain (f; IED; MPG; PDA; VOD); Pregnancy (f; PDA); Prostatitis (f; DAV; MPB; RAR); Pseudomonas (1; MPG; RAI); Pulmonosis (f; DAW; PDA); Respirosis (f; DAW; PDA; RAI); Rheumatism (f; IED; JFM; VOD); Sore (f; DAW; VOD); Spasm (f; DAW); Staphylococcus (1; MPG); Stomach (f; DAW); Stomachache (f; MPG); Stomatosis (f; DAW; MPG; RAI); Strangury (f; MPB); Tuberculosis (f; DAV; RAI; RAR; SOU); Ulcer (f; DAW; JFM); VD (f; DAW; MAX); Worm (f; DAW; JFM; VOD); Wound (f; VOD); Yeast (1; MPG; RAI)

DOSAGES (BRAZILIAN COPAL): FNFF! Seed edible (RAR), or more probably the nutritious pulp around the seeds eaten as, e.g., in Costa Rica, Panama and Peru (EGG; IED; MPG). Facciola relates that the sweet pulp around the seeds is eaten out of hand, like candy, or in custards or unfermented or fermented beverages or pepperpots. (FAC; TAN). 0.5-1 cup bark tea 1-3x/day (RAI); 1-3 ml bark tincture 2x/day (RAI)

- Brazilians use sap from bore holes in trunk for anemia, blennorrhagia, bronchosis, cough, cystitis, and prostatitis (IED; MPB).
- Colombians use liquid bark extract for blood pressure and hematuria (MPG).
- Costa Ricans take fruit decoction for high blood pressure and rheumatism (JFM), leaf decoction for diarrhea and stomachache.
- Guatemalans take bark decoction for worms (JFM).
- Haitians apply powdered resin or liniment to arthritis, bruises, cramps, myalgia, rheumatism, sores, wounds; also using plant for asthma, catarrh, constipation, diarrhea, emphysema, enterosis, headache, infection, nephrosis, respirosis, spasm, stomachache.
- Haitians tincture the resin as CNS-Depressant, sedative, for arthritis, asthma, bronchitis, cough, emphysema, nephralgia.
- Haitians use bark infusion or decoction as laxative or purgative (VOD).
- Hondurans use the bark as a substitute for quinine (JFM).
- Mexicans inhale fumes of burning resin for asthma and hysteria, using plant also for catarrh, rheumatism, sore, VD (JFM).

- Nicaraguan Garifuna use bark and sap decoction orally or topically for aches and pains, childbirth and pregnancy, diarrhea, fever, and respiratory-pulmonary disorders (PDA).
- Panamanians take the bark tea for rheumatic pain, also using plant for asthma, diabetes, diarrhea, gastrosis, hypoglycemia, and oral ulcers (IED; RAI).

MACA (*Lepidium meyenii* Walp.) ++

Maca is a tuber that has been cultivated for more than 2,000 years at high altitudes in the Andean Mountains. Maca is used for energy, longevity and fertility.

TBC [[aK2+2; C2+2; A2+4; G(2); s2]]

III.: BRASSICACEAE

NOTES (MACA): I rank it right there with suma, the Brazilian ginseng. On the other hand, I am a little skeptical of American and Chinese ginseng. The dried maca I was sent looks like a dried radish or turnip. Radishes and turnips are members of the same chemopreventive mustard family, Brassicaceae, and share most of the phytochemicals itemized so far for maca, like arginine and histidine. These two might tend to help rationalize the relatively new aphrodisiac reputation, just like vitamin C can rationalize the newly acquired medicinal respect for camu camu. I suppose maca could be used in kim chi, which just might help with Asian flu, according to hundreds of hits on Google. **COMMON NAMES (MACA):** Ayak (Peru; EGG); Ayak Willku (Peru; EGG); Chichira (Peru; EGG); Huto Huto (Peru; EGG); Maca (Eng.; Peru; Scn.; AH2; CR2; EGG); Maca Maca (Peru; EGG); Maino (Peru; EGG); Maka (Peru; EGG); Maqa Maqa (Bol.; Quechua; DLZ); Peruvian Ginseng (Eng.; CR2; EGG)

ACTIVITIES (MACA): Anabolic (f; JAF50:5261); Antiseptic (f; DLZ); Aphrodisiac (1; X11561196; X11297856); Chemopreventive (1; FNF; RAI); Cicatrizant (f; DLZ); Emmenagogue (f; DLZ); Immunostimulant (f; RAI); Lipogenic (1; X11048583); Memorigenic (f; RAI; EB55:255); Spermatogenic (1; X11561196); Tonic (f; EGG; X11297856); Vulnerary (f; DLZ)

INDICATIONS (MACA): Anemia (f; EGG; RAI; EB55:255); Cancer (f1; EB55:255); Cancer, Breast (f1; EB55:255); Cancer, Liver (f1; EB55:255); Cancer, Stomach (f1; RAI; EB55:255); CFS (f; RAI); Debility (f; X11297856); Depression (f; EB55:255); Dysmenorrhea (f; EGG; RAI; JAF50:5261); Gastrosis (1; EB55:255); Goiter (f; EGG); Hepatosis (1; EB55:255); High Blood Pressure (f; DLZ); HIV (f; EB55:255); Impotence (1; X11561196; X11297856); Infertility (f1; EGG; X11561196); Insomnia (f; JAF50:5261); Leukemia (f; EB55:255); Mastosis (1; EB55:255); Menopause (f; RAI; JAF50:5261); Pulmonosis (f; DLZ); `Rickets (f; EGG); Stress (1; EB55:255); Tuberculosis (f; RAI); Wound (f; DLZ)

DOSAGES (MACA): FNFF = !!. Root eaten after drying and cooking; or the juice is expressed, cooked and consumed, or made into chicha de maca; root macerated in alcohol and consumed as cocktail de maca (EGG). Maca is traditionally eaten as a food, only in the high Andes. For the herb market, maca is dried and encapsulated. 5 g capsule/tablet 2x/day (RAI). 1 tbsp powdered root (RAI) Maca Root Extract: 300 mg root extract, standardized for 0.6% macamides and macaenes, in a 145 mg base of Maca Root, 3 x/day (NH). 500 mg root, 3-6 x/day (NH). EXPERIMENTAL ANIMAL DOSES: 75 mg root extract /kg X11297856; 66.7 mg root extract/ml X11561196; in fairly large quantities. Some importers recommend a periodic break from maca consumption.

- Peruvians use for anemia, dysmenorrhea, energy, fertility, food, impotence, memory, menopause, and tuberculosis (EGG; RAI)
ALANINE 6310 RT RAI

ALKALOIDS RT EB55:344

ALLYLGLUCOSINOLATE RT EB55:255

ALLYLGLUCOSINOLATE SD EB55:255

ARGININE 9940 RT RAI

ASCORBIC-ACID 25-2,860 RT EGG RAI

ASH 50,000 RT EGG

ASPARTIC-ACID 9170 RT RAI

BENZYLGLUCOSINOLATE RT EB55:255

BENZYLGLUCOSINOLATE SD EB55:255

CALCIUM 2,470-2.500 RT EGG RAI

CAMPESTEROL RT EB55:255

CARBOHYDRATES 590,000-750,000 RT EGG RAI EB55:255

COPPER 60 RT RAI

MUIRA PUAMA “Potentholz” (German) (*Ptychopetalum olacoides* Benth.)

Muir Puama is also called “potency wood,” a plant known to be a nervous system tonic. It has a long history of use by Indigenous people for strengthening the nervous system and providing sexual energy.

TBC [[aK (5); C3-7; A5-7; G(2-5) s?]] FAM

Ill.: p 256 Vol.5 PIO OLACACEAE

NOTES (MUIRA PUAMA): My leading Brazilian sources (MPB, and RAI) indicate that the names and uses for closely related *Ptychopetalum olacoides* and *Ptychopetalum uncinatum* are almost identical (except the latter contains less lupeol; MPB). Pio Correa (1984) notes that Europeans had accepted the Brazilian traditional medicine for dysmenorrhea, dyspepsia, impotence and paralysis as early as 1932 (PIO).

COMMON NAMES (MUIRA PUAMA): Marapama (Brazil; RAI); Marapuama (Brazil; MPB); Muirapuama (Brazil; Eng.; Scn.; AH2; CR2; MPB; PIO); Muirat (Brazil; MPB); Muiratam (Brazil; RAI); Pau Homen (Brazil; RAI); Potency Wood (Eng.; RAI); Potenzholz (Brazil; RAI)

ACTIVITIES (MUIRA PUAMA): Adaptogenic (f1; RAI); Analgesic (f1; RAI); Antifatigue (f1; RAI); Antispasmodic (f; RAI); Antistress (f1; RAI); Antiulcer (f1; RAI); Aphrodisiac (f1; ABS; APA; CRC; NAD; PNC); Astringent (f1; PNC); CNS-Stimulant (f1; ABS; APA; CRC; MAD; RAI); Dopaminergic (1; ABS); Hypotensive (1; MPB; RAI); Memorigenic (f1; RAI); Nervine (f; APA; CRC); Neurotonic (f; EFS); Noradrenergic (1; ABS); Orexigenic (f; CRC; MAD); Panacea (f; CRC); Stimulant (f1; ABS; APA); Tonic (f; APA; CRC; MAD)

INDICATIONS (MUIRA PUAMA): Alopecia (f; RAI); Alzheimer’s (f; RAI); Anorexia (f; APA; PH2; RAI); Arthrosis (f; APA); Ataxia (f; RAI); Beri-Beri (f; RAI); Cardiopathy (f; RAI); Colic (f; MAD); Cramp (f; RAI); Debility (f1; ABS; RAI); Depression (f; RAI); Diarrhea (f; APA; PH2; PNC); Dysentery (f; MAD; MPB); Dysmenorrhea (f; APA; CRC; MAD; MPB; PIO); Dyspepsia (f; APA; CRC; PIO; RAI); Enterosis (f; RAI); Fatigue (f1; RAI); Flu (f; RAI); Frigidity (f; APA; RAI); Gastrosis (f; RAI); High Blood Pressure (1; MPB; RAI); High Cholesterol (f1;

RAI); Hookworm (f; APA; RAI); Impotence (f1; ABS; APA; CRC; PH2; PIO; PNC; RAI); Infertility (f; RAI); Lassitude (f1; ABS); Menopause (f; RAI); Neuralgia (f; CRC; MAD); Neurasthenia (f; RAI); Neurosis (f; RAI); Obesity (f; RAI); Pain (f1; APA; RAI); Paralysis (f; CRC; MAD; MPB); PMS (f; RAI); Poliomyelitis (f; APA); Rheumatism (f; APA; CRC; MAD; MPB); Stress (f; RAI); Stroke (f; RAI); Trauma (f; RAI); Tremor (f1; ABS); Uterosis (f; RAI)

DOSAGES (MUIRA PUAMA): FNFF = !. While I would not consider it a food, Facciola says, "The stem wood and root have a long history of use in Brazil as a general food tonic and appetite stimulant. Also becoming popular with natural food enthusiasts" (FAC). 2-4 ml liquid rt extract (APA); 1 dropper prior to sex (APA); 15-25drops fluid extract 2-3 day for aphrodisia (MAD).5-8 drops tincture for dysentery (MAD)0.5-2 ml decoction or liquid extract 3 X/day (10 parts dry herb, 2 parts grape brandy, 1 part glycerine)/(PH2). 0.5-5 ml liquid root extract (PNC); 2-4 ml bark/o root tincture (4:1) 2x/day (RAI); 1 cup root bark decoction daily (RAI)

- Brazilians use for alopecia, anorexia, ataxia, beri-beri, cardiopathy, cramp, debility, depressions, diarrhea, dysentery, dysmenorrhea, dyspepsia, enterosis, flu, frigidity, gastrosis, hookworm, hysteria, impotence, myasthenia, neuralgia, neurosis, paralysis, PMS, polio, rheumatism, stress, trauma, weakness (MPB; RAI).

DOWNSIDES (MUIRA PUAMA): Class 1 (AHPA, 1997). "No health hazards or side effects are known in conjunction with the proper administration of designated therapeutic dosages" (PH2).

EXTRACTS: Brazilian scientists, Siquera et al (1998), do not exactly call muira puama the major Amazon aphrodisiac. They mention that Amazon caboclos take the roots in alcohol for "nervous weakness," a syndrome with several symptoms: depression, lassitude, sexual impotence and tremors. A hydroalcoholic extract at 200 mg/kg potentiates yohimbine-induced lethality, reverses reserpine-induced ptosis, and prevents apomorphine-induced stereotypy. The data suggest that muira puama is a CNS active, interacting with the dopaminergic or noradrenergic systems. The authors speculate that, since some of the symptoms resemble parkinsonian symptoms, roots could have antiparkinsonian effects. Their extracts did affect pharmacological models for depressions, impotence, and tremors. Described as one of the major active constituents, lupeol is described as antiangiogenic, antiedemic; antiEBV,antiflu, antihyperglycemic, antiinflammatory (1/3 indomethacin), antilithic, antimalarial, antioxalate, antioxidant,antiperoxidant, antiprostaglandin, antirheumatic, antitumor, antiurethrotic, antiviral, cytotoxic, and hypotensive

SAMAMBAIA: GOLDEN POLYPODY (*Phlebodium aureum* (L.) John Smith) ++

Samambaia is a rain forest fern that contains a host of phytochemicals. Samambaia has a large creeping and dividing root or rhizome system; it is this rhizome, as well as the fronds or leaves, that is most used medicinally.

ILL.:p. 496 AUS POLYPODIACEAE

NOTES (GOLDEN POLYPODY): Hoshizaki and Moran (2001) note that this species is distinguished from other cultivated species by its sori arranged in 3-7, rather than 1-2 rows between the midrib and margin of the leaf segment. They describe it as a medium to large fern with moderately long-creeping rhizomes, easily cultivated and growing well under medium light in moist to moist-dry garden soil or well drained potting mix. (HAM) According to Moran, everyone now recognizes *Phlebodium* as the proper generic name. Its distinctness from *Polypodium* is supported by morphology and DNA studies. You can find botanical descriptions of *Ph. decumanum* and *Ph. pseudoaureum* by visiting the Flora Mesoamericana website maintained by the Missouri Botanical Garden. There is associated nomenclatural information available on the Gardens TROPICOS, also on-line. RAI aggregates *P. aureum* and *P. decumanum*; USN retains them as separate species.

ACTIVITIES (GOLDEN POLYPODY): Alterative (f; MBC); Anabolic (1; MPG); Analgesic (f; MBC); Anthelmintic (f; MBC); Antiaggregant (1; X8066104); Antiaging (1; RAI); Antielastase (1; X9434602); Antiinflammatory (f1; MBC; RAI); Antileukotriene (1; RAI; X8066104); Antioxidant (1; RAI); AntiPAF (1; RAI; X8066104); Antiradicular (1; RAI); Antirejection (1; HAD); Antirheumatic (f; MBC); Antitumor (1; RAI); Antitussive (1; MPG; RAI); AntiUV (1; RAI); Antivenereal (f; MBC); Antiviral (1; AUS; MPG); Astringent (f; MBC); Alterative (f; MBC); Anabolic (1; MPG); Analgesic (f; MBC); Anthelmintic (f; MBC); Antiaggregant (1; X8066104); Antielastase (1; X9434602); Cerebroprotective (1; RAI); Corticosteroidal (1; VAD); Demulcent (f; MBC); Depurative (f; MBC; RAI); Diaphoretic (f; DAW; MBC; RAI); Diuretic (f1; MBC; RAI); Emmenagogue (f; MBC); Expectorant (f1; MBC; RAI); Febrifuge (f; DAV; MBC); Hemostat (f; JFM; MBC); Hypotensive (1; RAI); IL-6-Inhibitor (1; X12890427); Immunomodulator (f1; MBC; RAI); Laxative (f; MBC); Lymphocytogenic (1; VAD); Neuroprotective (1; PHR13:566); Pectoral (f; MBC); Purgative (f; MBC); Sedative (f; MBC); Spasmolytic (f; MBC; VAD); Sunscreen (1; RAI); TNF-Inhibitor (1; X12890427); Tranquilizer (1; VAD)

INDICATIONS (GOLDEN POLYPODY): Abscess (f; RAI); Alzheimer's (12; RAI; PHR13:566); Anemia (f; MPG); Anorexia (f; MBC); Arthrosis (1; MPG; RAI); Asthma (f; AUS; JFM; MBC); Bleeding (f; MBC); Boil (f; RAI); Bronchosis (f; MBC; RAI); Bruise (f; AUS; MBC); Cachexia (f; RAI); Calculus (f; MBC); Cancer (f; JLH; MBC); Cancer, skin (f; MPG); Cancer, stomach (f; MPG); Cardiopathy (f; AUS; JFM); Catarrh (f; JFM); Cerebrosis (f12; PMG; RAI); Cold (f; RAI); Colic (f; AUS); Constipation (f; AUS); Cough (f; AUS; MPB; SAR; UPH); Crohn's Disease (1; MPG); Dementia (f12; RAI); Dermatoses (f12; MBC; RAI); Diabetes (1; MBC; MPG); Diarrhea (f; MBC); Dropsy (f; MBC); Dysmenorrhea (f; MPG); Eczema (1; MBC; MPG); Fever (f; DAV; MBC; EB25:239); Flu (f; RAI); Fracture (f; MBC); Gastrosis (f; MBC); Gout (f; MBC; RAI); Hepatosis (1; MPG); High Blood Pressure (f; AUS; MPG); Hoarseness (f; JFM); Infection (1; MPG); Lactose-Intolerance (1; VAD); Leukorrhea (f; MPG); MS (1; MPG); Nephrosis (f; AUS; DAV; MBC); Neurosis (1; PHR13:566); Oliguria (f; AUS); Ostealgia (f; MBC); Osteoarthritis (1; VAD); Pain (f; MPG; RAI); Pancreatosis (f; DAV); Pertussis (f; DAV; EBS; MBC); Psoriasis (f12; MBC; MPG; RAI); Pulmonosis (f; MPG); Respirosis (f; JFM; RAI); Rheumatism (f1; MBC; MPG; RAI); Snakebite (f; MBC); Sore (f; MBC; JTR); Stomachache (f; MBC; MPG); Stomatosis (1; MPG); Stone (f; MBC); Sunburn (f; RAI); Syphilis (f; MBC); UTI (f; RAI); Tendonosis (f; RAI); Tumor (1; RAI); Vaginitis (f; MPG); VD (f; DAV; MBC); Virus (1; AUS; MPG); Vitiligo (f12; MBC; RAI; PHR13:566); Worm (f; AUS); Wound (f; AUS)

DOSAGES (GOLDEN POLYPODY): FNFF = ??? Perez-Arbelaez says the root is edible. ½ to 1 cup leaf a/o rhizome tea 1-3 times day (RAI); 2-3 ml tincture 2x/day (RAI); 1-2 f leaf or rhizome capsule/tablet 2 x/day (RAI)

- Amazonians use for cancer, cough, detoxication, fever, immune disorders, nephrosis, pancreatosis, pertussis, psoriasis, and rheumatism (RAI).
- Brazilians use for blood disorders, bronchoses, cold, cough, dermatosis, flu, gout, psoriasis, respirosis, rheumatism (RAI).
- Cubans use for arthroses, asthma, cardiopathy, colic, external sores, falls, hypertension, rheumatism, worms, wounds (AUS).
- Hondurans take for arthritis, cancer, dermatosis, nephrosis, pain, psoriasis, rheumatism, tendonosis, ulcers.
- Mexican Totonacs use for coughs, internal bruises, and nephrosis (AUS).
- Peruvians take for abscesses, boils, cough, dermatoses, fever, nephrosis, pertussis, psoriasis, sores, and UTIs (DAV; EGG).

- Seminole use for recalcitrant chronic sicknesses (AUS).
- Venezuelans take for constipation and VD (RAI).

SANGRE DE DRAGO (DRAGON'S BLOOD CROTON) (*Croton lechleri* Muell. Arg.) +

Spanish for “dragon’s blood,” Sangre de Drago is a medium-sized tree growing up to 60 feet in height throughout the tropics and the Amazon regions of South America. When the bark of the tree is cut, a dark red sappy resin oozes out as if the tree was bleeding.

TBC [[aK(5); C0; A10-30; G(3) s3-6]]

III. f 80 DAV EUPHORBIACEAE

NOTES (DRAGON'S BLOOD CROTON): Many American species produce red latex, the subject species *Croton lechleri* (Bra, Bol. Col. Ecu, Peru) and *Croton charaguensis* (Bol.), *Croton draco* (CA. Mex), *Croton draconioides*, *Croton erythrochilus*, *Croton gossypifolius* (Cr to Ven.), *Croton hibiscifolius* (Cr to Ven.), *Croton salutaris* (Brazil), *Croton sordidus* (Andean), *Croton urucurana* (Bra, Par.); and *Croton xalapensis* (CA. Mex). Many of them are called dragon’s blood or some variant thereof and many are used similarly in traditional medicine.

INDICATIONS (DRAGON'S BLOOD CROTON): Abortion (f; CTD); Allergy (f; RAI); Aphtha (f1; RAI); Bacteria (1; PM60:541); Bites (f1; RAI); Bleeding (f1; CTD; MPG; RAI); Bone Cancer (f; CTD); Cancer (1; HAD); Cancer, colon (1; RAI); Cancer, skin (f; RAI); Cancer, stomach (1; RAI); Candidiasis (f; SHM); Childbirth (f1; DAV; RAI); Cholera (1; HAD); Cytomegalovirus (1; 60P); Decubitus (f; RAI); Dermatitis (f; RAI; SHM); Diabetes (f; RAI); Diabetic Neuropathy (1; RAI); Diarrhea (1; HAD); Duodenosis (f; SHM); Dysentery (1; HAD); Eczema (f; RAI); Enterosis (f1; DAV; RAI); Flu (1; 60P; RAI; SHM); Fracture (f1; DAV; RAI; RAR); Fungus (f; RAI); Gastrosis (f1; DAV; HAD; X10898763); Gingivitis (f; RAI); Hemorrhoid (f1; DAV; RAI; RAR); Hepatosis (1; RAI; 60P); Herpes (1; RAI; SHA; 60P); IBS (f; RAI); Infection (f1; BEJ; RAI; PM60:541); Inflammation (f1; 60P); Laryngitis (f; RAI); Leukemia (1; RAI); Leukorrhea (f1; DAV; RAR); Mycosis (1; RAI); Nephrosis (f; BEJ); Neuroses (1; RAI); Onychyosis (f; RAI); Pain (1; X11564183); Parainfluenza (1; RAI); Pharyngitis (f; SHM); Pneumonia (f; SHM); Rash (f; RAI); Respiritis (1; HAD; RAI); Rheumatism (f; MPG); RSV (1; HAD); Sarcoma (1; RAI); Sore (1; DAV; HAD); Sore Throat (f; RAI); Staphylococcus (1; MPG; 60P); Sting (f; RAI); Stomatitis (f1; RAI); Swelling (f; RAI); Tonsillitis (f; SHM); Toothache (f; SHM); Tuberculosis (f; CTD); Ulcer (f1; DAV; RAI; X10898763); Uterosis (1; DAV); Vaginosis (1; DAV; RAI); Virus (1; 60P); Wound (f1; CTD; DAV; MPG); Yeast (f; SHM)

DOSAGES (DRAGON'S BLOOD CROTON): FNFF = X. Since he came on board (ca 1994), our ACEER shaman, Antonio Montero Pisco applied it topically to bug bites and stings. He also suggests a couple drops of the "blood" in a glass of water for topical, and internal applications. Traditional doses are generally 5-20 drops of bark latex, mixed in cold or warm water, juice, milk or alcohol, taken orally 1-3 times/day for up the 3 weeks. "No side effects are known for the internal use of sangre de drago" (Ubillas et al, 1994; Zak, 1991), as quoted in SHM.

- Brazilians use for bacterial infections, bleeding, cancer, dyspepsia, fever, mycoses, tumors, ulcers, and wounds (RAI)
- Ecuadorians use for cancer, inflammation and wounds (RAI).
- Peruvians use for bleeding, bug bite, cancer, diabetes, diarrhea, eczema, fractures, gastroenterosis, gingivosis, hemorrhoid, infection, laryngosis, pharyngosis, rash, rheumatism, toothache, tumor, ulcers, vaginosis, and wounds (RAI).

EXTRACTS (DRAGON'S BLOOD CROTON): Taspine, dimethylcedrusine, and yet a third compound, suggestive of pycnogenol, each alone speed up healing 2-fold on exfoliated rodents, but the whole dragon's blood does it 4 times better (ABS).

SUMA (*Hebanthe eriantha* (Poir.) Pedersen) ++

Suma is a food plant that has been used for ages by people of Amazonia as an adaptogen for energy and longevity. Suma is also called “para toda,” which means “for everything,” indicating the popularity of this food for general health.

TBC [[P3–5(3-5); A1-5; G(2-3)]] (family)

III.: AMARANTHACEAE

NOTES (SUMA): There has been some subsequent work published on suma, mostly from Japan, but as with camu camu, cat’s claw and maca, very little early published traditional medicine, mostly material from the last decade or two. Remember though, there was no early published traditional medicine for cancer for the North American mayapples or yew, but both have yielded important hard core pharmaceuticals for cancer, that have sold for billions of dollars.

COMMON NAMES (SUMA): Brazilian Ginseng (Eng.; RAI); Carango (Brazil; MPB); Corango Açu (Brazil; RAI); Para Todo (Brazil; RAI); Paratudo (Brazil; MPB); Russian Secret (Eng.; RAI)

ACTIVITIES (SUMA): Adaptogenic (f; APA; RAI); Anabolic (f; RAI); Analgesic (f; RAI); Androgenic (1; X14967943); Antiallergenic (f; RAI); Antiascites (1; APA); Antiaging (f; MPB); Anticancer (f1; APA; MPB; X16039950); Antidiabetic (f; MPB); Antiinflammatory (f; RAI); Antileukemic (1; X10917139); Antilymphomic (1; RAI); Antimelanomic (f; APA); Antineoplastic (1; X16051424); Antitumor (1; APA); Antiviral (f; APA); Aphrodisiac (f1; MPB; X10227074); Chemopreventive (f; APA); Circulotonic (f; RAI); Estrogenic (1; RAI; X14967943); Hypoglycemic (1; X15784959); Immunostimulant (f1; APA; RAI; X16214177); Memorigenic (f; RAI); Mytonic (f; RAI); Orexigenic (f; RAI); Phagocytotic (1; X16214177); Progesterogenic (1; X14967943); Testosterogenic (1; X14967943); Tonic (f; MPB); Tranquilizer (f; RAI)

INDICATIONS (SUMA): Anemia (f1; RAI; X11091225); Arteriosclerosis (f; RAI); Arthrosis (f; RAI); Asthma (f; RAI); Bronchosis (f; RAI); Cancer (f1; APA; X16039950); Cancer, colon (1; RAI); Cancer, liver (1; X16039950); Cancer, lung (1; RAI); CFS (f; RAI); Circulosis (f; RAI); Diabetes (f1; APA; X15784959); Dysentery (f; RAI); Dysmenorrhea (f; RAI); Dyspepsia (f; RAI); EBV (f; APA);

RAI); Enterosis (1; RAI); Fatigue (f; APA); Gas (f; RAI); Gastrosis (f; RAI); Hepatosis (1; X16039950); High Blood Pressure (f; RAI); High Cholesterol (f; RAI); Hyperglycemia (1; RAI; X15784959); Immunodepression (f; RAI); Impotence (f1; MPB; RAI; X10227074); Inflammation (f1; RAI); Leukemia (1; RAI; X10917139); Lymphoma (1; RAI); Malaria (f; RAI); Menopause (f; APA; RAI); Mononucleosis (f; RAI); Neurosis (f; RAI); Pain (1; RAI); PMS (f; RAI); Psoriasis (f; RAI); Rheumatism (f; RAI); Sickle Cell Anemia (1; X11091225); Sterility (f; RAI); Stomachache (f; RAI); Stress (f; APA; RAI). Tremors (f; RAI); Tumor (f; RAI)

DOSAGES (SUMA): FNFF = !. 500-1000 mg dry herb 2-3x/day (APA); 1-2 520 mg capsules, 2 x/day (APA). One edible plant book describes suma as “Brazilian ginseng,” a promotional misnomer. I suspect the book is passing along some hype, which I doubt, when it says, “The roots have reportedly been used as a ginseng-like tonic by the Xingu tribe of Matto Grosso, Brazil for at least three hundred years.” (Facciola, 1991)

- Brazilians use for anemia, arthritis, asthma, cancer, CFS, circulatory disorders, dermatosis, diabetes, EBV, hyperglycemia, hypertension, immunodistress, impotence, inflammation, leukemia, lymphatic ails, mononucleosis, pain, rheumatism, sores, stress, tremors, and tumors (RAI).
- Ecuadorians use for arteriosclerosis, bronchosis, circulosis, diabetes, dyspepsia, hormonal problems, rheumatism, sexual dysfunction, sterility (RAI).
- Peruvians use for diarrhea, dysentery, fever, flatulence, malaria, and stomachache (RAI).