

RECORD

4573

CIRPT

BOT

Plowman

009

USDA Plant Inspection House

P. O. Box 2136

MIAMI, FLORIDA 33159

Permit # 37-41840



## PERSONAL ACCOUNT BOOKS

No. 2044

Available Rulings

JOURNAL

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S. E. LEDGER

RECORD

D. E. LEDGER

144 PAGES

U. S. A.

p. 427

63. Centropogon wumbambae E. Wimm. Repert. Sp. Nov. 38: 7 1935

A glabrous shrub with climbing, slender, pendant branches; leaves oblong, 4.5 cm. long, 1.5 cm. wide, acute, narrowed to a petiole 1 cm. long, flat-crenate, interspersed with callous teeth; inflorescence racemose, lax, long; bracts lanceolate, petioled; pedicels 3 cm. long; hypanthium depressed-globose, 7 mm. in diameter, sepals linear, 6-7 mm. long, divaricate and toward the apex again ascending; corolla crumpled 33 mm. long (form a); filaments glabrous; anther tube 7 mm. long, black-pilose in the fissures.

680 - 2050 m.

thickets

63a C. w. var. estrellanus E. Wimm. Repert. Sp. Nov.

38: 8 1935

Leaves broadly elliptic, 10 cm. long, 7 cm. wide, rounded at the apex, at the base broadly cuneate to a petiole 15-20 mm. long; pedicels 10-15 mm. long; corolla somewhat smaller.

Ayacucho: - dense forest 500 m.

- HELLYER, A.G.L. Garden plants in colour... (Collingridge 1958)
- HELLYER, A.G.L. The encyclopaedia of plant portraits  
(Collingridge 1953)
- JAMESON, H.G. Illustrated guide to the trees and flowers  
of England and Wales (London 1909)
- KEUKENHOF, Lisse, Holland [Colour-illustrated guide. In  
English, Fr., and German and Dutch. n.d.]
- LANFRANCO, G.G. Guide to the flora of Malta (Malta, 1960). Unbound.
- MANSFIELD, T.C. The border in colour. Revised ed. (Collins 1947)
- MARTIN, W.K. The concise British flora in colour...2nd ed.  
(Ebury Press, 1969, repr. 1971)
- MARTIN, W.K. Sketches for the flora...selected by J.Cald-  
well... (M. Joseph, 1972)
- SANDERS, T.W. Rock gardens and alpine plants...3rd ed.  
(London )
- SPRY, C. Flower decoration (Dent 1934, repr. 1947)
- SPRY, C. How to do the flowers (Atlantis Publ. Co.,  
London, c. 1945?) Unbound.
- SYNGE, P.M. Collins guide to bulbs (Collins, 1961)
- WAGGERL, K.H. Die schönsten Alpenblumen (Verein zum Schutze  
d. Alpenpflanzen und -Tiere, Munchen)

1. *Lemna ecuadoriensis* sp. nov.

*Lemnae obscurae* valde affinis sed differt frondibus angustioribus (1 1/2 - 2 partibus longioribus quam latibus), radicibus brevioribus. Fructus incogniti. Habitat in Ecuador.

Type collection: Ecuador, Prov. El Oro, between Machala and Santa Rosa, 300 ft.; in a drainage ditch. leg. T. Plowman, L. Jacobs and E.W. Davis 4609; December 2, 1974. Holotype: U. Isotypes: F, GH.

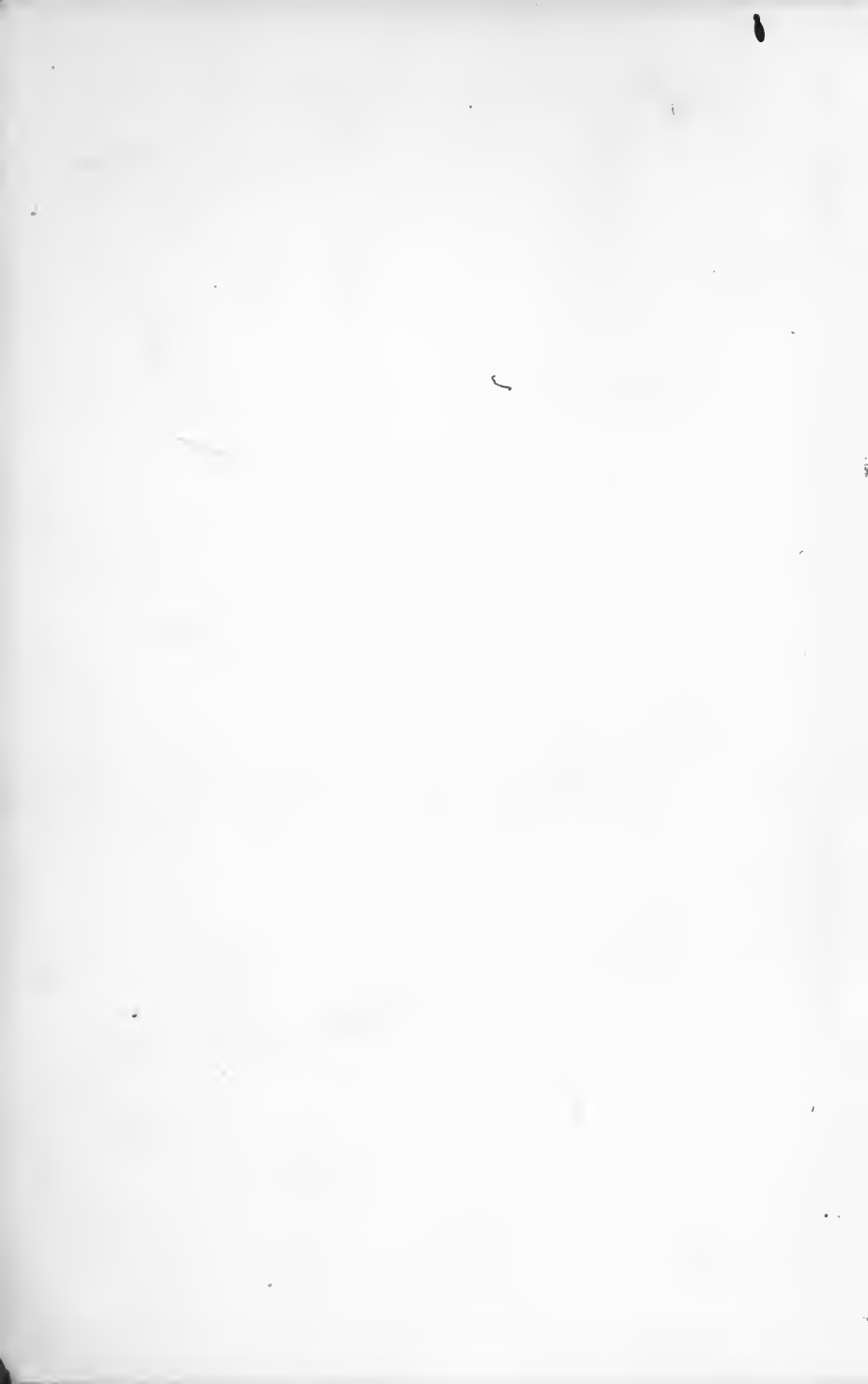
*L. ecuadoriensis* is very similar to *L. obscura* but its fronds are generally narrower, 1 1/2 - 2 times as long as wide (*L. obscura*; 1 1/5 - 1 2/3) and the papule at apex seems to be still more prominent; the fronds are dark red underneath and the roots relatively short (up to 1,5 cm); flowers and fruits are not known.

The species is solely known from the type locality in Ecuador; it is therefore difficult to decide which features are diagnostically relevant and how large the whole variation specter is. The taxon might be considered as a variant of *L. obscura*; however, the next station of *L. obscura* is more than 2000 miles apart in Mexico and climatic conditions at the type locality are different from those occurring within the main distribution area of *L. obscura*. The climate at Machala (Ecuador) is warm throughout the whole year and shows a very pronounced dry season; on the contrary, the climate of Southeastern North America where *L. obscura* has its optimum is cool during winter time and has a high rainfall during the vegetation period. It seems reasonable to describe this collection provisionally as a separate unit. More material from the region is desirable.

E. Landolt in Veröffentlichungen des Geobotanischen Institutes der Eidg. Techn. Hochschule Stiftung Rübél, Zürich. vol 70: 22. 1980.

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TIMOTHY PLOWMAN  
BOTANICAL MUSEUM  
HARVARD UNIVERSITY  
CAMBRIDGE, MASS. 02138



Ecuador: Prov. Chimborazo.

Road from Riobamba to Guamate,  
~~between~~ <sup>Near</sup> Pimozant

Alt. 9800 ft. 28 Nov 1974.

with Wade Davis + Lee Jacobs.

GH  
USM  
MO  
BIRTS  
US  
4573. Acnistus = Ioichroma <sup>redet.</sup> ~~Fr~~ A. Hunziker 1983.  
(A)(6) lehmannii Bitter  
Tree 10 m. tall along stream,  
Keds trunk 30 cm DBH. Corolla  
greenish yellow. FRs. pale green.  
(A) → K

GH  
S  
4574. Moussina  
2) Shrub 1.5 m. Corolla dark  
blue, keel yellow. FRs. reddish.

GH  
(1) 4575. Bomarea  
Vine in thicket. Calyx + corolla  
dark red abaxially, pale yellowish  
red adaxially.

U.  
GH  
S  
(A) → GB  
4576. Bomarea  
Stem in thicket. Sepals orange,  
abaxially, acuminate green, yellow adaxially.  
Petals golden yellow abaxially with  
orange coats, adaxially yellow with dark  
red spots. Ovary green.



Glt  
S

4577. Podocarpus

(2) Shrub or tree to 4m. in thicket.

Glt  
U  
seed PTBG

4578. Arthrosanthus chimboracensis.  
~~Sisymbrium~~

(2) Herb in pasture on hillsides. Fls. light blue.

Glt

4579. Stenomesson aurantiacum (HBK.) Herb Amaryllid.

(A) (1) Bulbiferous herb. Ovary green. Fls. orange.  
(A) → K

Glt  
S

4580. Salvia

(2) Shrub 1-2 m. Bracts blue-black apically, green below. Corolla dark blue-violet.

Glt

4581. Bomarea

(A) (1) Vine in thicket. Sepals lt. red abaxially, pale brown-yellow adaxially. Petals yellow-green, abaxially with medial red stripe, adaxially with <sup>large</sup> dark brown splotches.  
(A) → K

4582. Berberis

GH  
S

(2) Shrub 2 m. in thicket. Buds red-orange. Petals bright orange.

Oreocallis mucronata (R. + P.) Sleumer

4583. Embothrium det. B. Sparre '76 Proteaceae

WSM  
F needs 3  
COL  
GH  
S

(6) n. v. "galuzay" - fls. for kidney ailments.

Shrub or tree to 6 m.

Stamens white, <sup>w/ pink veins</sup> pink at base. Style yellow, pink toward apex.

seed PROT Stigma yellow-green.

det C. Niezgodna 1976.

Ⓟ → K

4584. Chuquiuga

Composite

GH

Bracts orange. Corolla yellow. Styles deep orange.

ECUADOR: PROV. CANAR.

1 Dec 1974.

4585. Erythroxylum

ECON

(1) "Coca"

Cultivated at Cochencyay.

Provided by Interpol Agent Capitán

Guillermo Gomezjurado. large lf.

4586. Erythroxylum

ECON

(1) Cultivated at Chilcales.

small leaf.

Ecuador: Prov. Azuay.

Road Cuenca to Jiron. 1 Dec 1974.

Alt. 8020 ft.

4587. Streptosolen jamesonii

Glt foto (1)

suffrut. herb 0.5 m. on dry.  
Open road bank. Fls. <sup>red</sup> orange tobes,  
tube orange

4588. Pitcairnea pavonii Mez

Bromelac.

U. S  
foto

(3)

Herb on steep road bank. Bracts  
green. Calyx pale red. Corolla deep red.  
det L.B. Smith 1975

~~Alt.~~ Alt. 6700 ft. Road Jiron - Catavita.

4589. Passiflora manicata (Juss.) Pers.

(2)

Glt S

(A)

Vine in thicket. Bracts basally  
light green, apically brownish.  
Pedicel + hypanthium pale green.  
Sepals pale green abaxially, red  
adaxially. Petals light red abaxially  
bright red adaxially. Corona  
purple with white outside edge.  
Gynophore pale green. FR. green,  
Seeds black.

det. P. Matkowitz 1982.

(A) → K

seed PTBG.

PROV. ABAJAY

Alt. 5500 ft. Catavita - PASAJE

minus L.

4590. Tropaeolum ~~tricolor~~ det. B. Sparre 1978

USM (A)(6)

Herb. vine on open roadside cut + in thickets. Calyx red-orange lower 2 lobes pale greenish, tipped green. Upper 2 petals ~~yellow~~ yellow-orange with <sup>thin</sup> red stripes. Lower 3 petals clawed, yellow-orange with red orange spot axially. FRS. pale green.

GH  
F  
S  
US

RHS Wisley  
Garden  
PTBGT

(A) → K

4591. Eclipta

GH  
S

(2) Vine in thicket along road. Fls. greenish yellow, margin of petals bright yellow.

4592. Cereus Trichocereus pachanoi

GH

(1)

Cactus 5m. tall on steep dry hillside. Hypanthium tube green with black indument. Outer tepals light green, inner tepals white. det. M. Flores 1977.

GH  
S

4593. Peperomia

(2)

Succulent herb on dry hillside. Spikes red.

4594. Tochroma ganeum

GH (A) (1) Shrub 1 m. tall in open waste place along road. Calyx dark green. Corolla deep purple. Frs. pale green purplish tinged.  
- see 7333 cult. (F)  
live → Mo. Bot. Gard. 1981; Waima 1981!

Alt. 5100 ft. Km. 96. from Culeuca on road to Pasaje.

4595. Nicotiana glutinosa L.

GH (3) (A) Sticky herb 1 m. tall on dry roadside. Corolla tube yellow-green, lobes pale red within.  
det D'Arcy 1976.

(A) → K

GH 4596. Opuntia

(A) Low creeping cactus. Ovary green. <sup>inner</sup> Tepals bright red-orange; outer tepals greenish yellow.

(A) → K

4597. Jatropha

GH | Herb with succulent stems. Milky latex. Corolla bright red.

GH  
DAD  
S

4598 Euphorbia weberbaueri Mansf. Euphorbiac.

(3) Leafless branched shrub with yellow green stems. Infl. + fls. dark purple.

det G.L. Webster 1975

PROV. AZUAY

~~Alt. 2800 ft.~~ Alt. 2800 ft. JIRON-PASAJE

USM  
GH  
S  
H  
D

4599. Lequeumonia corymbulosa Benth.

Vine on dry hillside along road.

Corolla lt. blue. det K. Robertson 76.

U.  
USM  
GH

4600. Eucrosia aurantiaca (Baker) Trub  
det. Plowman 1981.

Bulbiferous herb on steep dry hillsides. Pedicel & ovary dark green. Corolla lt. yellow. Filaments pale green. FRs. dark green. Bulb white.

(= 7634)  
12024

Seedling → PTBG, Herklots, FTG: SEL MO. FLAS Waima

f. eurganea Macbr.

GH  
F  
S

4601. Clavija pungens (Willd.) Radik.

(3) (A) Tree or shrub to 3 m. Fls. orange; FRs. orange.

det. C. Niez Goda 1976.

seed PTBG  
Waima 755296 SEL

4601A. Clavija eurganea

Seedling from 4601. 18 Oct 1978.

(A) → K

→ J. weberbaueri Helwig

det. D. Austin  
1982.

S  
F  
GTT

4602. Isquemontia aff. guyanensis (Aubl.) Meisner  
seed. (3) Vine on ~~dry~~ roadsides. Fls.  
nuds. light blue. (1) det. K. Robertson fl.

GTT 4603. Pisonia  
(1) Shrub 3 m. Frs. dark  
brown.

4604. Bauhinia sculeata L.

GTT S (2) (A) Shrub 3-4 m. Corolla  
pure white. Frs. brown.  
Calyx pale green.

GTT 4605. Anthurium pohlii det. TBCroat  
(1) Epiphyte. Lvs. Coriaceous.  
Spathe light green. Spadix  
dull pink.

~~4604~~

Alt. 2500 ft.

GTT 4606. Escobadea scabrifolia  
(1) Herb on hillside. Fls. white.

GH (1) 4607. Momonga  
Herb 1 m. Rachis pale red.  
Fls. violet, keel yellow.

Ames S (2) 4608. Epidendrum  
Herb on boulder along road.  
Fls. pale greenish brown.

Lemna ecuadorensis Handolt det E. Handolt 1979  
(Zurich)  
syn.?

Ecuador: Prov. EL ORO. 2 Dec 1974.  
300 ft. alt. Between Machala + Santa Rosa.

GH-iso  
F-iso-4609  
U-holo (3)  
S-iso  
4609. Lemna perpusilla Torrey  
Floating aquatic herb.  
Det. J. Cramer 1976.

Road Arenillas to Huaquillas. Alt. 400 ft.

GH  
USM  
S  
4610. Capparis  
(3) Vine in dry deciduous forest.  
Fls. white.

GH (A) (2) 4611. Carica parviflora (A. DC.) Solms &  
Shrub unbranched to 3 m with  
semi succulent stem. Rachis + fls.  
bright pink.

(A) (1) 4612. Tillandsia disticha H.B.K. Bromeliad,  
Epiphyte in dry thorn scrub.  
Fls. dull yellow. det T.B. Smith '76



PERU: Depto. LIMA. Prov. Canta.  
Valle del Rio Chillón. Yangas  
Alt. 3500 ft. 8 Dec 1974.

4613. Rumex

GTH (1) Weed 1 m. along river, in sand.

4614. Zanichellia palustris L.

U. GTH (2) ✓ Aquatic submerged herb in Rio Chillón. det. Utrecht 1982.

USM GTH 4615. Cucurbit.  
(2) ✓ Vine on river bank. Fls. yellow. FRs. bright yellow-green.

USM GTH 4616.  
✓ 2 Aquatic herb in shallow place along river. Stems red-purple. Fls. yellow.

4617. Heliotropium angiospermum Murr.

GTH USM (2) Herb on riverbank in sand. Fls. white.

4618. Heliotropium arborescens L.

USM GTH (2) ✓ Shrub 1.5 m. on riverbank. Fls. <sup>pale</sup> violet. det. M. Fröhlich 1984. Foragin.

4619. Desmodium  
GH (2) Subshrubby herb on sandy beach  
needs 1 along river. Fls. blue-violet.

4620. Passiflora suberosa L.

USM (3) ✓ Herbaceous vine with thick woody  
GH stalk in sandy beach along river.  
Perianth lt. green. Corolla yellow.  
Lit. P. M. Jørgensen 1984.

4621. Cestrum

USM (2) ✓ Shrub 2-3 m. along irrigation ditches  
GH Corolla tube greenish yellow, lobes dk.  
brown.

4622. Acnistus arborescens (L.) Schlecht.

USM (3) ✓ Shrub 1-3 m. along irrigation  
GH ditches. Fls. creamy white. FRS.  
~~BHK~~ pale orange.

4623. Cyclanthera pedata (L.) Schrad.

Econ. (3) Cult. vine along irrigation ditch.  
K Fls. yellowish. Fr. green.

PERU: LIMA. La Molina.  
24 Dec 1974. Jardín Botánico.

4624. *Erythroxylum* nov. granatense  
(2) var. hauxillense (Rusby) Plowman  
ECON  
K  
Cult. shrub 2 m. tall in Jardín  
Botánico. Buds creamy yellow.  
From Trujillo.

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PERU: Tarma de V. s. o. Tarma  
Alt. 8700 ft. Km. 87 from Lima.

*Lycopersicon*  
4625. ~~*Solanum*~~

GH  
~~BARK~~  
(2) semi erect herb. vine on  
dry roadside. Fls. br. jkt yellow.

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PERU: Depto. Junín. Huancayo.  
Bought in Estanca de Coza. 28 Dec 74.

ECON 4626. *Erythroxylum* coca  
"gringuita" From Huancayo. "Best chew"  
Price: 60 soles/pound.

ECON 4627. *Erythroxylum* coca  
"Cuzco Verde" - \$60 soles/pound

ECON 4628. *Erythroxylum* coca  
"Cuzco Negro" - "Cuzco Huantesdo"  
60 soles

PERU: Depto. Huancavelica.  
Prov. Tzayacaya. Between Acostambo  
and Izcuchaca, <sup>near</sup> km. post 173  
(from La Oroya). Alt. 11500 ft.  
Steep Dry roadbank. Dec 28, 1975.

4629. Cassia latipetiolata Domb.

(2) NY ✓ seed. Shrub 1.5 m. Fls. golden  
yellow. Very frequent.  
det. R. Barneby 1975  
GTH

4630. Duranta rupestris Hayek

(2) NY ✓ Spring shrub 2-3 m. Fls. pale  
violet. Frs. light green.  
det Moldenke 1975  
GTH

4631. ~~Ischaema~~ Dunalia spinosa.

GH (7) (A) ✓ Spring shrub 2-3 m. on dry roadside  
and hanging from cliff. Pedicel +  
USM  
BARK  
MO 4. calyx lt. green - Corolla deep  
F COL blue-violet. Frs. still green.  
K (A) → K DUNALIA OBOVATA (R. & P.) DAMMER  
DET. HUNZIKER 1986

4632. Colletia

GTH (2) (A) ✓ Spring leafless shrub 1.5 m.  
S Calyx pale green. Corolla dark red  
in bud, becoming creamy white.  
(A) → K

4633. Hesperomeles

USM (2) ✓ Shrub 1.5 m. on roadside.  
GTH Fls. dark red. Frs. green with red blush.  
Rosac.

GH 4634 Lubi?  
USM (2) (A) Prostrate herb on rocks  
with succulent red lvs. & fls.  
red.

GH 4635. Peperomia pucu-pucu  
(1) (A) Subfleshy herb arising from  
round rhizome (bulb), growing in  
rock wall. Spikes cream.

GH 4636. Solanum  
MO (3) Suffrutescent herb to 2 m.  
BIKM Fls. deep violet to pale violet.

GH 4637. Calceolaria  
(1) Herb 1 m. tall on road bank.  
Fls. deep yellow.

GH 4638. Calceolaria  
(1) Herb 1 m. tall on bank along  
quebrada. Fls. bright yellow.

GH 4639. Bomarea  
(1) Vine in thicket along stream.  
Ovary light green. Sepals dull red  
(A) TGB abaxially, creamy white adaxially,  
with tiny maroon spots at apex. Petals

clawed, abaxially with red claw + midrib, blade yellow green with sparse maroon dots near margin; adaxially claw cream, blade yellow green with dense maroon spots throughout. Anthers green.

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Kin. Marker 176, same locality.  
Alt. 11300 ft.

4640. Tecoma stans (L.) Juss. ex HBK. s.l.  
(3) ✓ Treelet 2-3 m. tall on roadside banks. Corolla deep yellow.  
det. A. Gentry 75.

4641. Cantua flexuosa (R. + P) Pers.  
(2) det. Jul 1979.

GHS  
S  
LIVE:  
Lyon Arb. Shrub 1-2 m. tall in thicket along stream. Calyx green, corolla + filaments creamy white.

Ⓐ → K

4642. Ephedra

(3) ✓ Shrub with lax scandent branches, 1.5 m. tall. Cones green.

USM  
GHS  
S

GH  
BIRM

4643. Solanum aff. lycioides L.

(2) Subshrub with slender erect  
branches. Corolla pale blue -  
violet. Anthers bright orange.  
det A. Hunziker 1978.

PERU: Dept. Huancavelica. Near  
Huancavelica. Alt. c. 12500 ft.

GH

4644. Solanum nitidum R. + P.

(A) <sup>(1)</sup> Roadside. Shrub 1m. tall.  
seed Ripe berries bluish red.  
det R.N. Lester 1978

PERU: Dept. Huancavelica.  
13 mi. SW of Huancavelica,  
after Huama. Alt. 13100 ft.

glandulosa (Hook.) Miers ssp. glandulosa

4645. Salpichroa cf. hirsuta (Meyen) Miers det. S. Keel 1982.

(B) (A) Semi prostrate shrub growing  
against vertical rock faces.

GH live  
USM  
COL. seeds  
S  
F 5  
US  
BIRM → K  
MO  
(A) → NY

Fls. pendant; calyx light green.  
Corolla light yellow. FRS.  
yellow green.

(A) → K

Peru: Dept. Huancavelica.  
Prov. Castrovirreyna. <sup>near</sup> Apacheta  
Grande. ALT. 14800 ft.

4646. (Loasaceae: Cajophora horrida Urb. + Gilg.)

seed  
USM  
GTH  
52

Herb growing in protection of  
large boulder Lvs. with profuse  
irritating hairs. Petals  
red orange. Nectaries <sup>pale</sup> yellow  
Filaments white.

(A) → K

Peru: Dept. Ayacucho.  
Ayacucho. 1 Jan 1975.

4647. Solanum

Scrapped Weedy herb along path in  
Ayacucho. Fls. white.

4648. Erythroxylum coca

ECON

Leaves bought in Ayacucho  
market. 1 pound 50 soles.  
From "La Selva", Upper Apurimac.  
(near Ayua?)



PERU: Depto. Ayacucho.  
Prov. Huamanga. Road from  
La Quinua to ~~From~~ Abra  
Apacheta de Tambo. 3 Jan 75.

Alt. 11500 ft.

S  
GRH  
USM  
F  
4649. Escallonia myrtilloides L.f. var. myrtilloides  
(4) ✓ Shrub 1.5 - 3 m. ~~Fls.~~ <sup>creamy</sup> Fls. white.  
det. C. Niezgodna 1976.

4650. Bomarea

GRH (1) Vine among shrubs. ~~Calyx~~  
Ovary grey-green. Calyx pink.  
Corolla pinkish yellow.

(A) → K  
Alt. 12000 ft. → Sarccha spinosa D'Arcy & Sm. (Damm.)  
[Sarccha punctata R. + P.] HUZZIKER 1994

GRH  
USM  
F  
BIRM  
MO + live  
COL seed PTBGF  
4651. Poecilochroma spinosa Damm  
(5) Shrub with erect stem +  
short horiz. branches. Corolla  
yellow at base, dark purple  
above. Fr. black.

PERU: Depto. Ayacucho. Prov. La Mar.  
Tambo. Alt. 10400 ft.

(A) → K

4652. Clematis seemanii O. Ktze.

USM (4) ✓ Vine on roadside. Tepals  
F  
S  
GRH  
creamy white.  
det. C. Niezgodna 1976.

(A) → K

PERU: Depto. Ayacucho. Prov. La  
Udr. 3 Jan 75.

Road Tambo to. Ayua.  
Near La Estrellita. Alt. 11500 ft.

Git  
K 4653. Cantua  
USM (b) Shrub 1.5 m. Fls. red.  
US seed 3  
COL seed PTBG

(A) → K

Git  
USM 4654. Vallea Eleocar.  
(2) ✓ Shrub 4 m. Fls. carmine red.

Road from Tambo to Ayua.  
near Jano. Alt. 9500 ft.

Embothrium grandiflorum Lam.

K  
USM 4655. ~~Roupala~~ det. C. Niez Goda 1976.  
F (4) ✓ → Oreocallis grandiflora (Lam.) R.Br.

Shrub 2-4 m. tall. Frequent.

Git  
seed PTBG. Petiole, corolla + pistil bright  
pink.

4656. ✓ Ericac.  
USM (2)

Git  
Shrub 1 m. tall on steep open  
hillside. Calyx red. Corolla greenish  
white.

GH 4657. *Ericaceae*  
USM (2) ✓ Shrub 1 m. on steep open  
hillside. Pedicel, + corolla white  
calyx reddish at base, lobes  
white.

GH 4658. *Baccharis* sp. *Comp.*  
USM (2) ✓ Shrub 2 m. Heads creamy  
white to pale pink.  
det. E. Zardini '77

GH 4659. *Miconia* sp. (Sect. *Cremnium*) *Melast.*  
US (2) ✓ Shrub 1.5 m. on steep open  
hillside. FRS. dark purple.  
det Wurdack 1975

GH 4660. *Cephaea*  
USM (2) ✓ Subshrub to 1 m. Hypanth.  
dark red. Petals red orange.  
steep open hillside.

GH 4661. *Umbell.*  
(1) Tall herb 4 m. in cloud  
forest. Fls. br. green.

GH 4662. *Lupinus* sp.  
USM (2) ✓ Shrub 1.5 m. on hillside.  
Banner blue violet, pink at  
middle. Wings blue violet, keel  
white. FRS. brownish black.

4663. Peperomia

- GH (1) Fle. by herb on steep open road-  
bank. Lfs. pink beneath. Spikes  
red, fls. green.

(Britton) A.C. Smith

GH 4664. Demosthenesia pearcei Ericac.

- (2) Shrubs to 1m. on steep hillside.  
Calyx lt. green. Corolla lt-pink  
det. ~~F. P. O. Smith~~ 1976.  
J. Luteyn

GH 4665. Piper

- USM (2) ✓ Shrub 3m. along quebrada at  
edge of forest. Spikes dark grey-  
brown.

det. Lindrum 1986.

Myrteola microphylla HBK. var. glabrata Berg.

GH 4666. Myrteola weberbaueri Diels Myrtac.

- MICH (2) ex descr. det. R. McVaugh 1975.

Shrubs 1m. tall on steep open  
hillside. Calyx pale green. Petals  
& stamens white. Fr. white to  
pale pink, resinous taste.

4667. Begonia

(2)

- USM  
GH Herb on wet road bank. Petiole  
deep pink, under side of lf. lt. pink.  
Ovary & abaxial side of sepal deep  
pink; adaxial side & petals white.

4668

Orchid.

Ames (1)

Epiphyte on tree trunk in wet forest. Lf. purple beneath. green above. Fls. dark red with paired yellow markings.

Git 4669. Peperomia

(1)

Epiphyte on fallen log. Semi-succulent. Spike lt. green.

4670.

Orchid

Ames (2)

Epiphyte on tree trunks in wet forest. Fls. dull red purple.

Git 4671.

(1)

Herb 1 m. tall. Fls. <sup>but</sup> light green. <sup>Araliace.</sup>

4672. Centropogon asteriscus

(Wimm.) McVaugh

Campanul.

Git seed-PROGS herb 4 m. Lvs. lt. green

USM (3) Above, red purple beneath.

Ovary <sup>+ sepals</sup> yellowish <sup>green</sup> ~~to~~ to dark red purple. Corolla green with cream. with purple hairs. Stamen cream pale green, anthers dark purple. Flk. lt. green. latex white.

det. S. J. J. J.

GH 4673. Fuchsia ovalis R. + P.  
USM (3) ✓ Herb in wet forest 1.5 m.  
K Hypoanth. + sepals ~~deep~~ pink.  
Petals deep pink. Pedicel + ovary  
reddish green. det. Kew 1977.

GH 4674. Cuscuta  
USM (2) ✓ Parasitic vine. Stems yellowish.  
Fls. pale yellow. Rosette

GH 4675. Asplenium fern.  
GH (2) ✓ Fern on bank in wet forest.

GH 4676. Polypodium  
USM (2) Epiphytic fern on tree trunk in  
wet forest.

GH 4677. Asplenium  
GH (2) Terr. fern on bank in wet forest.

GH 4678. Fuchsia denticulata R. + P.  
seed (2) ✓ Shrub 2 m. on wet road  
K bank near pool. Ovary yellow  
green. Hypoanth. + sepals pink,  
sepals tipped green. Petals deep  
pink. Fls. pale green.  
det. Kew 1977.

GTH  
MCH  
USM  
4679. Ranunculus  
(1) ✓ Herb. ~~Herb.~~ ~~Herb.~~ Petals  
cadmium yellow. Open roadside  
in wet places.

GTH  
USM  
4680. Asplenium  
(2) ✓ Herb on bank in wet forest.

GTH  
USM  
4681. Asplenium  
(2) Terr. herb in wet forest.

USM  
4682. Bomarea  
(2) ✓ Vine in thickets. Ovary  
purplish green. Sepal abaxially  
orange, adaxially deep yellow  
green at tip with purple spots.  
~~Herb.~~ Petals: claw deep yellow,  
blade green with purple spots.

GTH  
4683. Bomarea  
(1) Vine in thicket Frs.  
dark green.

GH 4684  
USM (2)

Epiphytic fern in wet forest.

GH 4685. Bomarea  
USM (1)

Shrub in thicket. Ovary purplish.  
Sepals pale red-orange, green  
at tip. Petals: claw yellow,  
blade green, with purple brown  
spots on adaxial surface.

---

~~4686~~

Road from El Tembo to Ayua.  
Alt. 7800 ft.

GH 4686. Ruyschia pavonii J. Don Margrav.  
U (4) ✓  
USM  
F  
Shrub on steep rocky cliff.  
Fls. lt. green. Nectary yellow-  
green. Wet forest.  
det. C. Niezgodka 1976.

GH 4687. Begonia  
USM (2)

Herb (m. in wet forest.  
Perianth pinkish white.

4688. Helosis corynaea sprucei Eichl. Balanph.

(1) (A) Epiphytic in thick leaf mold,  
arising from large woody thallus 6 in. diam.  
Peduncle brown. Infl. dull salmon pink.  
det. B. Hansen 1976.



GH 4689. Clusia?  
USM (2) ✓ Tree 5 m. in wet forest  
NY along ~~the~~ quebrada. Fls.  
pale yellowish to cream.

GH 4690. Tradescantia?  
U. (2) ✓ Creeping herb at edge of  
forest. Fls. white.

GH 4691. Pilea libica.  
U. (2) ✓ Herb 1.5 m. in wet forest,  
Fls. cream.

GH 4692. Trichantha sp. nov. Generica.  
Selby (2) ✓ Shrub 2-3 m. in wet  
forest. Pedicel + calyx ~~green~~  
yellow. Corolla <sup>tubular</sup> dull red,  
lobes yellow.

GH 4693. Vitac.  
S (2) ✓ Vine 4-5 m. Buds green.  
in wet forest.

GH 4694. Peperomia  
U. (2) ✓ Epiphyte, succulent stems  
red. Lvs. yellow green. Spikes  
& fls. dark red.

GH 4695. Lycianthes  
BIRM (2) Weak shrub 1.5 m. Fls. light green.

4696. Croton  
USM (2) ✓ Shrub 1.0 m. Fls. cream. FRs. light brownish green.

GH 4697. Solanum  
BIRM (2) Treelet 3 m. Fls. white. FRs. orange at maturity. In 2' fst.

GH 4698. Pilea Urtica.  
u. (2) ✓ Herb 1 m. Fls. pale green. In forest along quebrada.

GH 4699. Cucurbit.  
USM (3) ✓ Herb. vine 4-5 m. long in ~~the~~ forest margin. Ovary + hypanthium pale green. Corolla yellow-orange.

GH 4700. Cucurbit.  
USM (3) ✓ Herb vine 4-5 m. in wet forest. FRs. dark green mottled with ~~each~~ light green spots.

4701. Epidendrum

USM  
AMES  
u

(3) ✓ Tall redstem on rocky out-  
crop in wet forest, 3 m. tall.  
~~Stem~~ Rachis + ovary dark brown.  
Bract + sepals reddish to  
purplish brown; sepals dull  
yellow ochrace. Corolla dark  
red-purple. Lip cream.

4702.

AMES

(Orchid.)

(1) Epiphyte on tree trunk in  
mossy forest. Sepals violet.  
Petals white with violet  
tinge.

4703.

~~USM~~  
USM  
US

Aralia.

(4) ✓ Unbranched tree 4 m.  
tall. Buds light green.  
Lvs. rusty brown beneath.

4704. Dioscorea

USM  
GHT

(2) Vine 2 m. Fls. dull yellow.  
Forest margin along trail.

Road from Tambo to Ayra.  
Alt. 5500 ft. 3 Jan 1975.

US  
GH 4905. Begonia parviflora  
(2) ✓ Unbranched herb 6 m.  
Lf. dark red beneath, green  
above. Fls. brown. Fst. margin  
scrapy.

GH  
BIRM  
MO 4906. Solanum  
(3) ✓ Small shrub 2 m. on open road-  
side. Lfs. dark green above,  
whitish beneath. Fls. white.  
Frs. dark green.

Alt. 6100 ft.

GH  
MO  
BIRM 4907. Solanum (Lycianthes)  
Shrub 3 m. on open roadside.  
Corolla deep violet, fading pale  
violet.

4908. Heliconia <sup>subulata R. + P. det. G. Donnell 1977</sup>  
~~acuminata~~ subsp. subulata  
(2) ✓ Herb 2-3 m. Peduncle green.  
Bracts + rachis red. Pedicel red.  
Ovary green. Corolla yellow. Frs.  
black. Forest margin.

U.  
GH

det. L. Andersson 1984.

Alt. 4700 ft.

GH 4709. Heliconia lingulata R. + P.  
u (3) Herb. 2 m. on open roadside  
USM ~~at edge of hillside.~~ Bracts,  
seeds PTBC bracts, pedicel, bracteoles  
ovary bright yellow. Fks.  
black. det ~~F. J. J. J.~~ G. Daniels  
1976.

Alt. 3200 ft.

4709a Costus

GH (4711a) Herb in thicket along  
u (3) road, 4 m. tall. Bracts light  
USM green apically, red below. Ovary  
white, ~~red~~ Calyx red, Corolla  
deep orange-red. Stamens lt. orange-  
red. Anthers yellow-orange.

4710. Calathea

GH (3)  
u (A) → F Herb 2 m. in thicket along  
F road. Bracts light green.  
Bracteoles white to cream.  
Sepals pale <sup>greenish</sup> white.  
Corolla tube + petals cream.  
Stamens lt. brown. Stamens  
dark brown.

PERU: Depto. Ayacucho. Prov. La  
Mar. Rio Apurimac. La Mejorada.  
1920 ft. alt. Between San Francisco  
and Santa Rosa, Dist. Cepichico. 4 Jan  
1975.

FP 11. Erythroxylum coca

Soil (3)  
(A)  
Seed to Duke  
CS.

ECON  
U  
USM

5 hectares planted in rows.  
Sowed from seed. Plants live 10-15  
years. Harvest every 3 months.  
100-150 arrobas. ~~100~~ No prun-  
ing - plants are "left" when they  
get too old or diseased.

No fertilizer used. Sprayed with  
DDT and Kiabe (barbasco).

Planted 1-3 inches apart, rows 1½-2 ft.  
apart. Soil red. Vertical furrows 3 in. deep.

1. toknoy } trunk green burned  
2. lausajelma } to make coca.

Witches broom - atopa lichens - ? enfermedad

Price: 1000 soles/arroba. Tax in  
Machenta \$55.20/arroba.

Shrubs 1-1.5 m., trunk to 2 cm, grey.  
picked 1 week earlier. Lvs. yellowish green, pale  
green beneath with 2 distinct paler lines. Pedicel  
& calyx pale green. Petals cream, becoming yellowish.  
FRS. dull yellow, becoming dull orange, then red.  
Fls. long & short styled.

4712. Erythroxylum coca

(9)

USM Plantation on hillside, dark

w/ F02 brown soil.

COL

Shrubs .5-1.0 m. tall. lvs. dark

US

green above, pale green beneath

S

with 2 lines;

ECON

Some ~~the~~ plants chlorotic with

K

light yellow green leaves. Soil dark brown.

(A) → K

4713. Erythroxylum coca

~~ECON~~ F(?)

GIT needs

Older planting full of weeds

US

and witches broom and lichens.

47BA.

lichens

on 4713!

det. H. Robinson  
1979.  
→ Spilanthes alba L'Her.

4714. Spilanthes acumella L. Compositae

ECON (2) ✓ "Kubikiro" - ~~weeds~~ heads used  
US ✓ for toothache. Anaesthetic effect.  
Weeds in coral. Heads pale yellow.  
det Craig Greene 1975

4715. Commelina longicaulis Jacq.  
(2) Herb in coral. Fls. bright blue.  
det C.W. Greene 1976

ECON 4716. Amaranthus dubius Mart. ex Thell.  
(1) ✓ weed in coral. Fls. greenish white.

4717. Jussiaea erecta L.

(2) det TP. '75  
USM  
ECON weed in coral, 1 m. Petals golden  
yellow; ovary dark red.

ECON 4718. Eleusine indica (L.) Gaertn. Gram.  
US (2) ✓ weed in coral.  
det C.W. Greene 1975

ECON 4719. Cyperus ferax L. C. Rich. Cyperaceae  
USM (2) ✓ weed in coral.

4720. Ageratum conyzoides L.  
USM (2) ✓ weed in coral. Fls. lt. blue.  
ECON det TP. 1975.



US ECON 4721. Setaria geniculata (Lam.) Beauv. Gram. (2) ✓  
Weed in coal. det C W Greene '75.

ECON US 4722. Paspalum conjugatum Berg. Gramin. (2) ✓  
Weed in coal. det C W Greene 1975  
redstone

ECON US 4723. Panicum laxum Sw. Gram. (1) ✓  
Weed in coal. det. Craig Greene '76

ECON US 4724. Vernonia? Comp. (2) ✓  
n.v taken  
US photo Shrub 2 m. Sterile. Roadside.  
Stem & roots used to make "Tocra" cf. Plowman 7939.  
Tocra Sample.

GH U. 4725. Dimeris costus argenteus (R. & P.) Maas (4) ✓  
USM. F photo Herb 4-5 m. in low lying swampy place along road. Lvs. silvery pubescent beneath. Bracts yellowish green. ~~Bracts~~ Bracts + calyx pale yellowish green. Petals translucent pale yellowish green. Labellum (Staminode) translucent pale creamy yellow with golden yellow hairs on adaxial limb surface. seed PTBG

Stamen creamy white, limb extension lt. yellow. Infl. 44 cm. long.

4726. Lonchocarpus urucu Killip & Show

(1) "kuba" "barbasco"

Econ)

Scandent shrub 2 m. tall  
cult. for roots. Sterile.

Roots dried, shipped to Lima  
to extract rotenone.

det C. Greene 1975

4727. Bomarea

(2) ✓ Vine in thickets, frequent.

Sepals orange. Petals yellow-  
orange.

USP  
GIT

4728. Bidens pilosa L. var. minor (Bl.) Scherf

Econ)

(1) weed in coral. Rays white.

Disc yellow. det. C. Greene 76.

---

Above San Francisco. c. 3300 ft

4729. Erythroxylum coca Lam.

Econ  
MO

(2) Shrub 1.5-2 m. in old planting.

(A) Interplanted with pina, citrus,  
yuca.

(A) → K

Machete, between Ayna + San Francisco.  
5 JAN 1975. 2° Thickets. Alt.?

4730. Acalypha

GH

(1)

Shrub 2 m. on hill behind town. ♂ fls. light brown, ♀ fls. green with red stigmas

4731. Piper elongatum Vahl

GH  
F

(2)

"matico" det. R. Collejas 1982.  
Shrub 2 m. tall behind town on hill. stems + petiole red. Spikes cream.

4732. Curcuma

Zingib.

(2)

✓ "patillo" (turmeric)

u.

Herb to 1 m. on hillside behind town. Bracts pale greenish white, cream toward apex of spike. Fls. yellow.

Peru: Depto. Ayacucho. Prov. La  
Mar. Between El Tambo and  
~~Agua~~. Agua. Masinga.

Dry thorn scrub. Alt. 10500 ft. 5 Jan 75.

Cajophora cf. circsiifolia Presl

4733. ~~Leguminosae~~: Cajophora piercei

(2) ✓ Low growing herbaceous vine.  
Petals red-orange.

GH  
USM

GH 4734. Solanum lycioides <sup>L. det.</sup> A. H. S. H. 1976  
BIRM (3) Densely branched, armed shrub  
MO 1-2 m. tall. Corolla white to pale  
violet, anthers red-orange.

(A) K

4735. Bomarea

(2) ✓ ~~Twining~~ Twining vine in thickets.  
Ovary grey green. Sepals abaxially  
dull pink to bright pink, pale green  
~~near apex~~ near apex, ~~abaxially~~ abaxially whitish  
pink. Petals clawed: claw cream to  
yellow with deep pink medial stripe.  
Blade bright yellowish green with  
dark brown spots on adaxial surface.

USM  
GH



DUNALIA OBOVATA (R. & P.) DAMMER  
S.D. SMITH (WIS) 2003

4736. ~~Trichocereus~~ = Dunalia spinosa

GH (3) (A) Armed shrub 2-3 m. tall,  
USM seed in thickets along roadsides. Corolla  
MO deep blue-violet. FR. yellow at  
BIKM 2 maturity. Frequent.  
F

(A) → K

Tricho-

4737. Cereus sp.

USM (2) ✓ Cactus 3-4 m. tall, branched  
GH forming clump. Hypanthium  
yellow green with dark brown  
hairs. Outer tepals pale green  
near base, dark maroon in upper  
half. Inner tepals pale maroon  
to creamy white. Filaments +  
style very pale green, stigmas  
yellowish.

det. M. Flores 1977.

4737A. Passiflora

seed only -  
BH

PERU: Depto. Cuzco. Prov. Cuzco.  
Cuzco. Ruinas de Sacsahuaman.  
Alt. . . . . 12 Jan 1975.

4738. Spiranthes  
(Live only) Herb on steep earth banks among ruins. Fls. greenish-white.

4739. Salpichroa  
G# (1) Subshrub 30 cm. growing in rock crevice among ruins. Fls. greenish-yellow.

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PERU: Depto. Cuzco. Prov. Urubamba.  
Ollantaytambo. Alt. 9200 ft.  
17 Jan 1975.

4740. Orchid.  
AMES (1) Terrest. herb on rocks forming clumps. Fls. pale brownish purple.

---

Alt. 10000 ft.

4741. Lycopodium  
G# (1) Herb in rock crevice

---

Alt. 9000 ft.

4742. Dioscorea  
G# (1) Vine among rocks. Fls. greenish.

Alt. 9500 ft.

Compositae  
Mutisiae

4743. Mutisia acuminata var.  
condolleana (Gardn.) Cabr.  
(4) Vine among shrubs along  
Cuzco road north of Ollantaytambo.  
GHT Infl. purplish. Rays yellow  
US orange. Styles red-orange.  
S det. E.H. Zardini 1977.

Peru: Depto. Cuzco. Prov. Urubamba  
Road Ollantaytambo to  
Chullay. # 17 Jan 1975.

Alt. 10500 ft.

4744. Tropaeolum Cochabambae Buch.  
GHT (4) Vine on open roadbank.  
S Cuzco Calyx lt. red, spur deep red-  
F orange. Petals golden yellow.  
det. B. Sparre

4745. Bomarea

GHT (2) Vine in thickets. ~~at~~  
foto ✓ Sepals deep red abaxially,  
USM dull yellow adaxially. Petals yellow  
orange with red spur and costa  
abaxially; adaxially yellow orange  
with red margin and dark brown  
spots.  
fruits ~~seeds~~  
apart

PERU: Depto. Cuzco. Prov. La Convención.  
Alt. 11500 ft. 1 km. 144 from Cuzco.

GH 4748 ~~8~~ Salpichroa didieriana Joubert  
K (8)  
Mo foto Vine climbing on tree trunk,  
F foto 5 m. high. Calyx green with  
US Cuzco brownish lobes. Corolla yellow;  
USM pendant fls.  
A → NY #

Centropogon isabellinus Wimm.

4747 ~~Siphocampylus~~ det. B. Stein 1985. Campsorus.

GH foto<sup>(2)</sup> Herb on roadside banks.  
K  
seed PTBG  
Calyx purplish green. Corolla lip  
dorsally pink, ventrally pale  
green, ~~lobes~~ upper lobes pink.  
Stamen tube lt. green.

4748. Solanum

GH (3) Shrub 3 m. tall. Corolla white.  
Cuzco  
BIROY Fr. green.

4749. Fuchsia denticulata R. & P.

GH (2) Shrub 1 m. tall on moist  
K roadside banks. Hypenthem, sepals &  
petals red-orange.  
det. Kew 1977.



Alt. 9760 ft.

GH 7750. Calceolaria zonatilla Kränzlin  
Cuzco (3) Scandent shrub ~~tree~~ or vine  
K foto. 1-2 m. tall. Corolla cadmium  
yellow. det. U. Molau 1982.

Alt. 10700 ft. (HBK.) Endl.

GH 4751. Colignonia parviflora Nyctag.  
Cuzco (3) Shrub 1-2 m. tall along  
U quebrada. 1 or more upper  
lvs. white. Fls. pink  
det L.Y. Th. Webster 1976.

4752. Tropaeolum ~~tuberosum~~ Cochabambae Buch.

GH Foto. Extensive herb. vine on steep  
Cuzco (3) open bank. Calyx, spur + 2 lower  
S petals bright red-orange, upper  
F seed 3 petals light yellow.  
PTBG  
A → K  
det. ~~C. Niezgodka 1976.~~  
det. B. Sparre 1976.

Seeds:  
Hornolulu Bot Gard  
PTBG

Alt. 8300 ft. Above Alpacayo.

4753. Cauna iridiflora R. + P.

(A) (13)  
fotos. Herb 4 m. tall in clumps  
Cuzco ~~star~~ along roadsides, on banks  
USM and along quebradas. <sup>Bracts</sup> Calyx ~~and~~  
U. ovary + bracts dark purple.  
Fruit K Corolla purple, Staminate deep  
GH 9 carmine red. FRs. yellow green  
45 with dark purple "spines".

Alt. 8100 ft. 17 Jan 75

4754. Canna leucocarpa Bouché = C. jaegerianus

(1) Herb 3 m. tall on roadbank.  
~~fls.~~ Bracts pale brownish green. Rachis  
U. - (1) pale brown. Ovary green. Calyx  
reddish green. Corolla pale orange.  
Stem node reddish orange. Fls.  
lt. green with red "spines".

Alt. 5800 ft.

4755. Renalmia thyrsoides (R. & P.) P. & E.

(3) ✓  
fls. Herb on steep hillside in  
Cuzco shade, 3 m. tall. Rachis lt. green  
bracts brown. Young fruit reddish  
brown, becoming greenish brown.  
Remains of calyx orange.

Alt. 5420 ft. Huayopata.

4756. Erythroxylum coca

(3) ✓  
fls. Shrubs 1.5 m. tall in tea plan-  
tation, interplanted with coffee,  
ECON fruit trees etc. Lvs. bright green  
~~fls.~~ above, dull, pale green beneath  
US with 2 distinct lines. Frs. orange to  
F red-orange.

ECON (2) ✓ 4757. Camellia sinensis.  
Extensively cult. shrub  
1 m. tall. Corolla white.  
Frs. green.

Peru: Dept. Cuzco. Prov. La Convencion.  
Alt. 3500 ft. Maranura. Hacienda  
Mandor. (Isidro Sayre Blanco)

4758. Erythroxylum coca (foto 4 pichen)

USH  
ECON

(5) ✓

Extensive coca plantations,  
3 year old plants, ~~recently~~  
pruned back to ground every  
3 years.

Unpruned 1.5 m. tall,  
pruned 0.5 - 1 m. Young  
fruits <sup>dull</sup> green.

4759. Capsicum baccatum L.

ECON  
RNG

(2) ✓ Subshrub 1.5 m. in coca  
field. Petals white. Frs. still  
green.  
det B. Pichensgill 1975

4760. Couma glauca

(A) (3) Herb 1.5 m. tall in swamp  
place along road. Bracts <sup>pale</sup> green.  
u. ✓ Rachis glaucous. Ovary <sup>wh. fish</sup> ~~th.~~ green.  
GIT Calyx pale green. Corolla pale  
yellow. Stamens yellow. Stamen  
yellow.

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PERU: Prov. La Convencion. Depto. Cuzco.  
Quillabamba. 18 Jan 75.

Alt. 3400 ft.

4761. Solanum caricæfolium Rusby

GIT (2) Shrub 1.5 m. tall along roadside.  
BHK in Quillabamba. Fls. white.  
seed PTBG FRS. orange. det A. Chud 1975

Road to Valle de Santana  
Pátrero.

4762. Pogonopus tubulosus (DC.) Seem.

GIT (2) Scandent shrub 2.5 m. Bracts  
K deep cerise pink. Corolla dull  
pink to purple, lobes cream axially.  
Alt. 3500 ft.  
det Kew 1977.

Alt. 4800 ft.

GH  
BIRM  
MO

4763. Salanum

(3) Roadside shrub 1-1.5 m. tall.  
Corolla fleshy, white. Fts. green.

Alt. 4780 ft.

4764. Solanum sp. aff. S. torvum Sw.

USM  
GH  
BIRM  
seed PTBG

(3) Roadside shrub 2 m. tall.  
Lf. underside white, dark shiny  
green above. Fts. cream.  
det. A. Child 1975

4765. Inga

USM  
NY  
GH

(3)

Tree with spreading crown.  
Not planted but used to shade  
coffee. Filaments white.

Alt. 4800 ft.

4766. Costus aff. guansiensis Rusby

U.  
GH

(2)

Herb 2-3 m. tall on roadside  
thicket. Bracts red, exposed  
appendage lt. green. Ovary white.  
Calyx red. Corolla <sup>pale</sup> cream-yellow.  
Stem nodes 2daxially creamy  
yellow, 2daxially pink-orange.  
Stamens 2daxially creamy yellow,  
2daxially pink.

Alt. 5400 ft.

4764 Erythroxylum raimondii O. Schulz

(8)

(A)

"coca coca"

photos

Shrub 1 m. to treelet 4-5 m. tall

Cuzco

mostly with several trunks ca. 5 cm. diameter, representing stem sprouts from older trees.

USM

U

F

US

GH

ECON

COL

Growing in open pasture with habitat of Psidium on hillside beside extensive Coca plantation.

WOOD

Aw

MADw

Uw

Stems reddish to greyish brown with lt. brown lenticels. Stipules persistent, pale yellowish green becoming brown. Lvs. dark green above, dull or somewhat shiny, pale green ~~below~~ midrib and 1st veins; beneath, pale dull green, with slightly paler midrib and nerves, the veinlets appearing darker green, finely reticulate. No flowers or fruits. Flowering in March. Many plants virus infected and/or with witch's broom.

Leaves of this Coca are used to adulterate commercial Coca by adding 4.5 lbs of E. raimondii per arroba. Leaves said to "picar" the tongue.

(A) → K

Alt. 3600 ft.

4768. Erythroxylum raimandii

(3) "coca coca"

Scandent shrub on steep banks,  
1-2 m. tall. Sterile.

USM  
ECON  
US

Alt. 4600 ft.

19 Jan 1975

4769. Erythroxylum coca Lam.

(2) "coca"

Cult. Shrub 1 m. tall in <sup>partial</sup> sun along  
road. Frs. red. growing "interplanted  
with coffee, Colocasia, citrus.

ECON  
US

4770. Erythroxylum coca Lam.

(2) ✓

Cult. Shrub 1.5 m. tall growing shade  
under coffee. Sterile.

♥ ECON  
US

4771. Erythroxylum coca Lam.

(2) ✓

Cult. shrub 1.5 m. tall growing  
in shade of coffee. Sterile.

ECON  
US

4772. Erythroxylum coca

(1)

1.0 m.

Cult. Shrub along road in partial  
sun. Frs. pale green.

ECON  
US

4773. Erythroxylum coca

ECON  
US (2) ✓

Cult. shrub 1.5 m. tall. Sterile.  
In shade.

---

Alt. 4400 ft. (1333 m).

4774. Erythroxylum coca

ECON  
US (2) ✓

Cult. shrub in partial shade,  
2 m. tall. Fr. bright red. In  
coffee plantation.

Alt. 4780 ft. (1448 m)

4775. Erythroxylum coca

Seed (2) ✓  
Ganders  
Duke

ECON  
US

Cult. shrubs 1 m. tall planted in  
vertical rows of steep hillside, weeds  
prevalent. Recently picked. New  
leaves pale yellow-green (chlorotic?)  
turning brown in press overnight  
(cf. *E. taimondii*). Frs. abundant,  
small, pale yellow green.



4776 Erythroxylum coca

ECOM  
US

(2) ✓

Shrub 1 m. tall in full sun on open hillside. <sup>new</sup> Lvs. yellow-green. Frs. abundant, green then yellow-orange, then bright red.

3600 ft. Alt.

4777 Erythroxylum raimondii

Curzo

USM ✓

(8)

ECOM

GH

G

S

MO

K

US

Shrub 2.5 m. tall along road near Cementerio de Quilla-bamba. Lvs. ~~is~~ dull to somewhat shiny above, pale green beneath with dark gr. veinlets. No lines. Arealar region scarcely distinguishable. Frs. light yellow-green with dark purple pigmentation, becoming red.

Very frequent.

Peru: Cuzco: La Convencion

4778. Bomarea

U.  
GH

(2) ✓ Vine in thicket. Ovary purple-black. Sepals pale pink. Petals cream with purple brown spots.

4779. Arrabidaea selloi (Spreng.) Sandw.

MO  
GH

(2) ✓ Vine in thickets. Corolla pink-violet.  
det. A. Gentry 75

4780. Mesechites.

Apocynaceae.

USM  
GH

(2) ✓ Vine with milky sap. Fks. green turning brown.

4781. Duranta sprucei Brig.

NY  
GH

(2) ✓ scandent shrub. Fls. pale violet. Fks. orange.

- lima
- palta
- naranja
- cafe
- pina
- cacao
- Jugé spp.
- banana

- papaya
- achiote
- caña
- camote
- cebolla

Colocasia

frijol

✓ Muz

Cucurbita maxima

~~pigeon pea~~

✓ yuca

Amora

maiz

Arracacha

(lechuga)

mani

col

rocoto

ruda

cebentro

pot herb?

lupin

Anthosoma sp.

Lucuma?

} higher  
~ 5000-  
6000

Peru: Depto. Cuzco. Prov. La Con-  
vencion. Quillabamba. Valle  
de Santa Ana. 20 Jan 75

Alt. 4200 ft.

4782. Schoenocaulon officinale. (Schlecht. + Cham.) Liliac.  
<sup>gr 24</sup>

F (4) ✓ Bulbif. herb on steep banks.  
Cuzco Spikes ~~are~~ pale green. Fls. creamy  
white, foetid. det. T. Plowman 1978  
u.  
GH

4783. Podandrogyne Cappari.

~~4783~~ (3) Shrub 2.5 m. tall in shade  
at edge of quebrada. Fls. red orange.  
USM  
GH u  
F  
Radiis + petioles red-purple.  
seed PTBG

4784. Physalis

GH (2) Herb 1.5 m. in shade along  
quebrada. Corolla pale yellow,  
dark brown near base.  
BIKMI

4785. Inga

NY  
USM (3) ✓ Tree 5 m. with spreading crown  
Cult. for shade? Filaments white.

4786. Capsicum baccatum L.

ECON (1) Shrub 1.0 m. Frs. pale yellow  
along trail on hillside.  
det Barbara Pichergill 1975.

4787. Citrus

ECON

(2)

"Limon dulce.

Cult. tree 4 m. tall. Petals white. Fks. green, yellow at maturity. Flesh pale greenish white.

4788. Capsicum baccatum L.

ECON

(1)

Herb along trail. Corolla pale cream-white with yellow spots within at the lobes. Fks. yellow-green, very pungent.

det B.  
P. densipil  
1975

4789. Dichorisandra

U

(3)

Scandent herb, or vine, hanging from road bank.

USM

GIT

Calyx pale blue. Corolla deep blue-violet. Fks. yellow green on lower half, deep wine red on upper.

4790. Citrus

ECON

(2)

mandarina

Cult. tree 3 m. tall. Fls. white fragrant. Fr. green, flesh orange.

Alt. 5800 ft. "Seemannia sylvatica  
4791. Gloxinia sylvatica (HBK) Wiehler Gesner.  
(1) Herb on open hillside among  
grasses. Stems red. Pedicel red.  
Calyx pale green to reddish. Corolla  
red-orange, inflated.  
det Wiehler

SMES 4792. Orchid.  
u. (2) Tubercled orchid among grasses  
bulbs on steep hillsides. Calyx pink.  
Petals white basally, pale pink  
toward tip. Lip white, middle lobe  
deep margin.

4793. Hesperoxiphion peruvianum Baker Iridac.  
a. (2) ✓ Bulbiferous herb in <sup>steep</sup> open hillsides  
GTT bulbs! among grasses. Fls. golden yellow.  
(Live) det. J. Henrich 1982.  
MO

4794. Dalechampia  
USM (2) ✓ Vine in open thickets on steep hill-  
GTT side. Bracts white tinged faintly  
with pink. ~~Fls.~~ Glands pale green.  
Cyathia red.

4795. Clavija cf. pungens (Willd.) Radlk.  
GTT (1) Shrub 2 m. at edge of forest remnant.  
Fls. orange.  
Seed PTBG

4796. Dichorisandra

U.  
GTH

(3) ✓ Herb 1-1.5 m. tall in cut-over forest remnant. Calyx pale green. Corolla lt. to deep blue-violet.

4797.

Awes

Orchid

(1) Terrestrial orchid in deep shade in forest on steep hillside. Fls. light green throughout.

GTH

4798. Peperomia

(1) Succulent Epiphytic herb on tree trunk. Stem red. Spikes yellow-green.

GTH  
Selby

4799. Diastema sp.

gesner.

(2) ✓ Herb in moist forest margin on hillside. Corolla scarlet. det H. Wichter 75

GTH 4800.

Cuzco (3) ✓  
~~F~~

Fern.

Epiphytic fern on tree trunk.

4801.

Burmennia

GTH

(A) Flecky Saprophyte in humus.  
(1) Stems red. Infl. + flowers white.

4802. Elaphoglossum  
(2) Caespitose fern in forest on steep hillside.

4803.

Crucifer.

45M  
GH (2) Herb in moist hillside forest.  
Fls. creamy white.

4804. Centropogon

Campanul.

GH (1) Herb to 0.5 m. in chacara, recently cut. Corolla deep carmine pink.

GH 4805. Piper

Crucif (3)  
F Shrub 2-2.5 m. in woods on steep hillside.

GH 4806. Solanum

(1)

Herb 0.5 m. tall in cut over forest. Petals greenish, reflexed. Stems dull yellow. Frs. wrinkled, blackish-green.

4807. Lycianthes

GH (2)

BIRM Shrub 1-1.5 m. Corolla <sup>light</sup> brownish-purple.



4808. Thalictrum  
~~American~~

GH  
4SM

(2) ✓ Herb 1-2 m. tall in open clearing in hillside forest. Fls. greenish.

4809. Capsicum pubescens R. + P.

USM-  
RNG  
MU  
ECON  
F

(6) ✓ fotos  
A

Cult. herb in Chacara in steep hillside forest; 1 m. tall. Corolla deep purple.

4810. Podocarpus harmsianus Pilger Conifer.

(3) ~~GH~~  
Luzo  
USM  
GH

Tree 6 m. tall on hillside disturbed forest. Sterile. Only one seen.

4811. Peperomia

GH (1)

Epiphyte, fleshy, in cut over forest. Stems red. Spikes pale greenish-white.

4812.

Ames (1)

Orchid. Terrest. in moist forest. Scape reddish. Fls. pure white.

4813.

Ames (1)

Orchid. Epiphyte in cut over forest. Fls. <sup>dull</sup> reddish brown.

det. Herklotz.

20 Jan 1975 var. estrellanus E. Wimm.

Grh 4814 Centropogon urubambae E. Wimm. Campaul  
Curzo vine hanging from tree tops  
F long trail. Corolla bright carmine  
pink. det C. Niezgodka 1976  
live U. Ch. EL. Al. ibiwa 1981!  
HLA (5/26/82)  
seed PTBCF  
live Fernando  
SEL, U. Ch. Alt. 4800 ft.

ECON 4815 Erythroxylum coca Lam.  
(2) "chipet coca"  
US Cult. Shrub 1 m. in open hillside.  
Lvs. dark green above, pale green beneath.  
Fls. green.

ECON 4816 Erythroxylum coca Lam.  
(1) "chipet coca"  
Seedlings among weeds near  
Coca plantations. Lvs. yellowish.

ECON 4817 Erythroxylum coca Lam.  
(2) US Cult. Shrub 1 m. in partial shade  
in coffee plantation. Lvs. dark green  
above, pale green beneath. Fls.  
green.

ECON 4818 Erythroxylum coca Lam.  
(A) Fls) Cult. shrub 1 m. tall in plantation  
F Grh (3) long trail. Lvs. bright yellowish  
green, paler beneath. Fls. creamy-yellow.

1600 m.

Alt. 5300 ft. 21 Jan 1975

4819. Erythroxylum Coca Lam.

(A) fl

"Coca"

F (4)

Shrub 1 m. cult. in partial shade under coffee + Inga. Fls. cream. Fks. olive green.

Alt. 4500 ft. - 1305 m

4820. Erythroxylum Coca Lam.

(3)

Cult. Shrubs 1 m. on steep open hillside. Steile. with witch's broom.

3600 ft.

\* 4821. Erythroxylum Coca Lam.

seed to

Church (4774)

Duke

ganders

Heterogeneous plantation, coca interplanted with yuca, cafe, canote, achote, frijol, maize, shaded by Inga.

Rows of coca alternating with rows of cafe; rows c. 1 m. apart, horizontal on hillside; coca plants ca. 0.5 m. apart in row. Others plants: yuca, maize, frijol, mixed in more or less randomly. Coca planted with several (2-3) plants per "hill". When 3 years old, cut back to

coca occurring in cafe rows by well.

ECO  
GIT  
US  
COL

US  
USM  
ECOL

about 3 inches from ground. no pruning  
of upper branches.

with erect branches.

4821a. Shrub 1.5 m. tall. Frs. ovoid,  
2 done deep yellow.

ECON  
US

b. Shrub 1 m. Frs. globose-ovoid,  
bright red, shiny, when mature.

ECON  
US  
MO

c. Shrub with spreading branches, lvs.  
small, dark green above, pale green beneath.  
Fruits long elliptisoid, light  
green.

ECON  
US

d. Shrub 1.0 m. tall, branches  
spreading; Lvs. dark, light green  
above (young), pale green beneath.  
Frs. fusiform, lt. green.

ECON  
US

2 done

e. Shrub 1.8 m. Frs. olive green,  
to dull yellow to orange. Lvs.  
dark green, shiny, firm membra-  
ceous, rubbery to touch.

USM

ECON  
3 done

⊕ → K

Weeds in 2nd 2 round coca fields. 3600 ft.

ECON 4822. Eleusine indica (L.) Gaertn. Gramineae  
(1) Spikes lt. green.  
det CW Greene 1975

ECON 4823. ~~Sida?~~ Mulvastrum coromandelianum  
(1) Herb. Fls. yellow orange. (L.) Gardner  
det CW Greene Feb

ECON 4824. Euphorbia heterophylla L.  
(1) Herb with white latex. Ovary +  
glands br. green. Petiole red.  
Fls. dull yellow. det CW Greene FT

USM 4825. Hyptis mutabilis (Rich.) Briq. Labrat.  
ECON (2) ✓ Herb 1-1.5 m. Strongly aromatic.  
Fls. lavender pink. det CW Greene

4826.

GIT (1) Terrest. fern on barren hillsides  
under coffee.

ECON 4827. Phyllanthus orbiculatus Rich.  
(1) Herb on roadside. Lvs. dark  
det. green-purple above, dull grey-  
purple beneath. Fls. dull pink.  
CW Greene 1975

ECON 4828. Conyza bonariensis (L.) Cronquist  
(1) Herb. Capitula creamy yellow.  
det CW Greene T Plowman

2. Jan 75

4829. Prophyllum ruderales (Jacq.) Cass. Composit.  
ECON (1) <sup>subsp. ruderales</sup> Herb. Involucre green to purple  
Fls. purplish. det Cw Greene 1975

4830. Desmodium  
GH? (1) Sticky herb. Fks. green.

4831. Solanum nodiflorum Jacq.  
ECON USM BIKM (3) ✓ Herb under coffee-shade. Corolla  
white. Fks. dull green turning black.  
det C.W. Greene 1975

4832. Eriochloa punctata (L.) Desv. Gramineae  
ECON (1) Herb on <sup>cult.</sup> ~~barren~~ slope. det Cw Greene

4833. Amaranthus hybridus L.  
ECON (1) Stems red. Bracts lt. green.  
det Cw Greene

4834. Euphorbia hirta L.  
ECON (1) ~~Stout~~ herb. Stems + infl. dull red.  
det Cw Greene 75

4835. Cyperus cayennensis (Lam.) Britton Sedge  
ECON BH (1) <sup>C. aggregatus (Willd.) Engelm det. G. Tucker 1985.</sup>  
On cult. hillside, shade.  
det Cw Greene 75

4836. Cenchrus viridis Spreng.  
ECON (1) Roadside. Fks. light green with  
red spines.  
det C.W. Greene 1975

ECW 4837 Trichachne sacchariflora (Raddi) Nees  
(1) Herb on cult. hillside.  
det CW Greene 75

4838. Juga

USM (2) ✓ Tree 4m. in coffee plantation.  
NY Calyx yellow green. Corolla + filament  
GH white.

NY 4839. Lantana armata Schau.  
GH (2) ✓

Herb 1m. Corollas deep pink  
in center of head, yellow orange  
at periphery.  
det Moldenke 1975.

NY 4840. Lantana maxima Hayek  
GH (2) ✓

Herb 1m. Bracts green.  
Corollas lavender pink.  
det Moldenke 1975.

NY 4841. Lantana ~~canata~~ armata Schau.  
GH (2) ✓

Herb 1.5 m. Corolla tube  
deep red orange, limb red-orange  
to yellow orange.  
det Moldenke 1975.

La Toma, 3600 ft. 21 Jan 75

4842. Lantana canescens H.B.K.

(2) Shrub 2 m. Fls. white.  
in Thickets.  
det. Moldenke 1975

4843. Talinum paniculatum (Jacq.) Gaertn.

(1) Fleshy herb on roadside. Fls.  
yellow.

4844. Erythroxylum raimondii O.E. Schulz

(3) Tree 5 m. tall on edge of  
one cliff in full sun. Lvs. dark green  
shiny, above; pale green beneath,  
subcoriaceous, no lines. FRs.  
call yellow green to red orange.

Quillabamba. Garden of Hotel Comercio.

4845. Calathea pavonii Koern.

(2) Herb. Lvs. green above, pale  
green below with very faint reddish  
bands. Bracts green. Fls. yellow.

Javier Sernaque - foto of kids  
Cosreo Central  
Quillabamba



PEHU: Dept. Cuzco. Prov. Le Convencion.  
Near Echarate on road to Shuayacu.

24 Jan 75 3100 ft. alt.

4846. Erythroxylum ulci O. E. Schulz

(23) ✓  
line  
foto  
seeds  
RA  
soil  
Cuzco  
USM  
ECON RB  
GTF NCU  
U HUT  
COL  
MO NY  
US GB  
F UC  
S LA  
K P  
NY BH  
IAN CGE

Shrub with spreading branches from base 2-3 m. high arching over on steep hillside, secondary thickets. Lvs. light yellowish green to green above, dull; pale beneath with 2 ~~distinct~~ lines sometimes apparent. Fls. creamy white. Young fr. green. Fruits fleshy, soft, dark wine red. At maturity, persistent. Fleshy part wears away leaving whitish stone.

(Eleanthus is 4947, not 4847)

4847. Erythroxylum rimundii O. E. Schulz

(4) ✓  
seeds to:  
Chuck (4777)  
Wainoa  
Duke  
MDE  
Cuzco  
USM  
ECON  
IAN  
F  
K

Tree 8 m. tall on steep slope with trunk 15 cm DBH. Bark at trunk ~~smooth~~ greyish brown, roughish with deep longitudinal cracks. Leaves subcoriaceous dark green above with yellowish nerves, pale green beneath, no lines. Pedicel lt. green, calyx yellowish green. Fruits deep red, readily abscising. Lvs. turn brown soon after picking. (= 13775 in cult)

CLAVIA PERUVIANA STAHL SP. NOV. ISOTYPE

2900 ft. DET. B. STAHL 1989

GH 4848. Clavija pungens (Willd.) Radlk.

Cuzco (A) Unbranched shrub 0.5-1 m. Petals

yellow orange, center cream. Frs. bright orange, brist red-orange. det C. Niezgodka 1976.

4849. Erythroxylum ulei O.E. Schulz

(3) ✓ Shrub 1.5 to 2 m. Lvs. dark green. In 2° forest. Sterile. In shade,

4850. Monopyle reflexa (Rusby) Wiehler <sup>ined.</sup> <sup>genl.</sup>  
(2) ✓ Herb in hillside forest. Corolla white. det Wiehler 75

GH 4851 Peperomia

Cuzco (2) ✓ crawling epiphytic herb, spikelet pale green → medium green, young stems rusty colored.

25 Jan 1975.

Sahuayacu. 3850 ft. Rio Chappimayo. Pacchar.

4852. Brouffelsia mire Monachino

Cuzco (A) (18)

Cuzco Unbranched shrub to 0.5 m. <sup>-1m.</sup> tall.

USM in disturbed forest - coffee plantation.

U Lf. rubbery, subcoriaceous, dark green  
K 2 above, dull; pale green beneath. Infl.

MO <sup>coll.</sup> F-Fls. Terminal; calyx dull yellow to <sup>pale</sup> purple.

BIRM US Corolla tube pale violet. Lims deep

violet above, pale violet beneath.  
Young fruit green.  
Bark thin, shedding in flakes.  
119c: Waimea Arb. 75c 344, MO

4853. Peperomia

USM  
GH  
F

(3) Fleshy herb on ground. Stem +  
petiole red. Lvs. underside tinged  
pink. spikes clear.

4854. Desmodium axillare (Sw.) DC

GH  
F

(2) creeping vine with prostrate  
stem. Infl. erect. Fls. magenta.  
Frs. lt. green. det. C. Niezgodz 1982.

Lindau  
4855 Stenostephanus thyrsoides Acanth?

GH  
US  
Luzco  
(3) Herb 1m. Rachis + calyx dark red -  
purple. Corolla carmine red.  
det. D. Wasshausen 1975

4856. Ruellia puri (Nees) Jackson

GH

(1) Herb in forest, 0.5 m. Corolla  
pale lavender-pink.

GH 4857. Solanum  
Cuzco (2) ~~2000~~ herb. vine. <sup>1m.</sup> Corolla white.  
BIRN Fns. pale green.

GH 4858. Solanum  
GH (2) Herb 0.5 m. Fls. white. Fr.  
light green.

GH 4859. Browallia  
Cuzco (2) Herb in shade in cafetal. Corolla  
BIRN (3) blue violet.

Campelia (A) → K

4860. Fratercula

GH Cuzco (2) Herb 1 m. Lv. green above, purple  
beneath. Fls. white. Fns. purple black.

GH 4861. Sambafaltomata  
Cuzco (A) (4) Herb 1 m. in cafetal. Corolla  
MO white. Fns. yellow.  
~~BIRN~~ (A) → K

GH 4862. Sanchezia peruviana (Nees) Rusby  
Cuzco (4) Herb 2.5-3.5 m. Bracts red-orange.  
US. Corolla yellow.  
#21 det. D. Wasshausen 1975

4863. Cassia macrophylla Kunth  
Cuzco (1) ✓ Shrub 2 m. in forest, flowers  
NY pale yellow-orange det. R. Barneby 1975  
GHT

4864. Desmodium  
GHT (3) Erect herb. Fls. pale blue-violet.  
USM  
F need one

4865. (Orchid)  
AMBS (2) Terrest. herb. Sheath light  
USM purplish. Scape purple. Ovary red  
purple. Perianth cream with  
tiny purple dots within. Column  
yellow.

4866. Pilea Urb. <sup>Urb.</sup>  
GHT (2) Herb with fleshy stem on <sup>wet</sup> mossy bank  
U along trail.

4867. Aegiphila umbraculiformis Moldenk  
GHT (1) Shrub, unbranched 1-2 m. Frs.  
green. det Moldenke 1977.

4868. Diastema sp. Gesner.  
GHT (1) Herb along trail in moist forest.  
Corolla tube yellowish. Linnb white.  
det H. Wiehler 75

4869. Melothria hookeri Cogn. Cucurb.

Cuzco Herb. vine in sun along riverbank.  
F GH (3) Ovary green. Fls. white.  
det C. Niezgodka 1976.

GIT 4870. Peperomia  
(1) Fleshy herb on moist rocks. Lvs.  
dark green above, very pale beneath.  
Spikes pale green.

GH (2) Presiflora Psuif.  
K Vine along trail in forest. Frs.  
6-merous, white with carmine red  
septa, red toward base.  
seed PTBS.

NY ✓ (2) Bouchea fluminensis (Vell.) Macbride Verb  
Stachytarpheta det Moldenke 1975  
(2) Herb 2.5 m tall along trail in  
forest. Fls. ~~lavender~~ - light blue violet.

GIT (1) 4873. Peperomia  
Fleshy herb on tree limb. Spikes  
pale green.

GIT (2) 4874. Asterostigma pavonii Schott Arac  
~~Dracontium~~ det. M. Madison 1976.  
Cuzco (1) Herb 1 m tall. Blade dark  
brown with tan markings. Peduncle  
dark purple, spathe reddish brown.  
with cream markings on  
fls. creamy white with red dots.

GH 4875 Tillandsia platyrhachis Mez Bromeliad.  
(1) Epiphyte. Lower bracts pale green. Upper bracts + rachis bright pink. Corolla blue-violet.  
det L B Smith 1976.

GH 4876 ✓ Cyrtosperma (2) terrestrial fern along trail. fern.

GH P 4877. Oxalis spiralis R. + P. ex G. Don  
(2) Fleshy stemmed herb on banks along trail. Stem red, lvs. green. Fls. pale yellow-orange.  
det. A. Courteig

GH 4878. Peperomia Piper.  
(1) Semi-fleshy herb. green stem + foliage. Sp. lvs. light green.

GH (3) 4879. hyacinthoides Solan.  
seed herb 1 m. Fls. dull yellow.

Episcieae  
4880. Columnea

GH Seed Epiphytic herb stem, petiole +  
(1) midrib ined. Calyx + fruit cream.

GH US 4881. Miconia cretacea Gleason det Wurdack 1975  
(2) ✓ Shrub 3 m. lvs. green above, white beneath. Rachis + ovary fawn-yellow. Petals + filaments white.

4882. Miconia cf. multiflora Cogn. det Wurdack 1975  
GH (1) - Shrub 3 m. Stems, petiole + leaf  
undersides light rusty brown (tawny).  
lvs. green above. Ovary pink. Petals  
white. stamens red-violet.

4883. Urera?  
GH seed (3) Treelet 4 m. Frs. bright orange.  
Curzo Overhanging quebrada. Not urticating.  
U seed PTBG

4884. Authurium eminens Schott Arec  
GH (2) Terrestrial herb on steep hillside  
MO forest. Spadix erect, brownish purple.  
det. M. Madison 1979.

US 4885. Panicum sp. Gramin.  
GH (6) det Soderstrom 1975 Bambus.  
Curzo Rhizomatous herb in shady forest  
F along trail. Spikes green. Anthers  
U yellow orange.  
COL

4886. Maranta aff. divaricata Rose.  
GH (2) Herb 1-2 m. along trail in  
F forest. Fls. <sup>red</sup> violet.  
det. HK 1978.



Gth 4887.

Cucurb.

(1) Herb vine 4-5 m. in thicket in sun. Ovary + calyx red. Corolla light pink.

Cabotia cf. chrysoleuca Koern.

Gth  
HK

4888

det. HK 1978

(live) Herb on hillside. Bracts light green. No flowers yet.

det Moldenke 1975

4889. Verbena litoralis H.B.K.

ECON

(1) Herb 1.5 m. Fls. blue-violet.

use: dried ground lf. used for wounds.

US

Gth

26 Jan 1975

~~P~~ F

Alt. 3100 ft.

UC 4890. Erythroxylum coca Lam.

seed ganders (5) ✓ Shrub cult. 2.5 m. tall. Fls. red.

Chahuares. 2300 ft.

4891. Lundia corymbifera (Vahl) Sandoz. Pignoniaceae

MO (2)

Vine in thicket along roadside in Chahuares. Corolla pure white.

det. A. Gentry '75

T. peregrinum L.  
var. weberbaueri  
(Loes.) sp. n.

26 Jan 1975. Dept. Cuzco.  
Prov. Calca.

GH  
F  
Cuzco  
S  
US

4600 ft, Quimayaca near Coka.  
4892. Tripaelum weberbaueri Loesn.  
Herb vine in thickets along  
roadside. Sepals + spur lt. green. Upper large  
petals br. yellow with small red dots near base. Upper  
3 petals cream, dotted purple, with yellow cilia.  
6300 ft. Calca.

AMES 4893.  
U L (3)

Trichopilia Orchid  
Herb on rock on steep bush  
along road. Sepals + petals light  
yellow green, lip white with yellow  
spot in center. Column white.

27 Jan 75

Pisap. Inca Ruins. 11500 ft.

GH  
MO  
BIRM → K  
NY ← (A)

4894. Salpiglossa <sup>weberbaueri Damm.</sup> ~~glandulosa (Hook.) Miss.~~ Solan.  
Subshrub on stone wall. Corolla  
tube yellow green, limb yellow.  
FR. green. det. S. Keel 1984.

GH  
USM  
F

4895. Ephedra Ephed  
(3) shrub 1.5 m. Cones yellow.  
(A) → K

ECON  
p

4896. Basella alba L. Basell.  
(2) Succulent vine. Corolla yellow  
green, lobes red tipped.  
(A) → GH

GH  
~~BRIT~~ K 4897. Salpichroa micrantha Benoist Sol.  
(2) Subshrub growing on rock wall. Fls. pale yellow. det. S. Keel 1984  
Passif.

GH  
K 4898. Besleria gracilens (Gray) Harms  
Nappenth.  
(2) Vine in thickets. ~~Grass-like~~  
yellow green at base, tube, sepals  
and petals <sup>deep</sup> pink. Fr. green.  
seemanzii O. Ktze.

GH  
USM 4899. Clematis ~~albiflora~~ Ranunc.  
(2) ✓ Vine in thickets. Perianth  
yellow.

GH  
USM 4900. Asclepiad.  
(2) ✓ Vine in thickets. Fls. yellow-  
green.

4901. Oxalis Oxalid.  
P  
unic. (1) Tubercled herb, stems fleshy,  
red. Podical & calyx red.  
Corolla yellow.

PERU: Depto. Cuzco. Prov. Paucartambo  
Between Huancarani and Mica. K. 46.  
Alt. 11600 ft. Open roadsides. 3 Feb 75

4902. Viola

Violac.

USM  
GH  
U

(3) Weed in potato field. Banner + wings white with purple stripes, banner with yellow spot near base. 2 heel petals violet.

4903. Sonchus sp.

Comp.

GH

(1) Weed in potato field. Rays yellow. Stem thick with milky juice.

GH  
P

4904. Oxalis petrophila R. Knuth

Oxalid.

Herb on rock wall along stream. Calyx red to greenish. Corolla yellow.

4905. Epilobium

Onagr.

USM  
GH  
MO

(3) Herb among grasses along stream. Hypanthium + calyx dark red-purple. Corolla pink.

no!

4906. Orthrosanthus chimboracensis

Irillac.

U

(2) Herb among grasses. Ovary dark red. Perianth pink.

G#H  
USM 4907. Castilleja Scroph.  
(2) Prostrate semi-squatic herb in marshy place along road. Bracts pale yellow green, red-orange in upper half.

det. M. Peckham 1984. ex Loud.  
(A) → K → Cajophora pentlandii (Paxt.) G. Don

G#H  
USM  
K  
# 4908. Cajophora? pachylepis Urb. + Gilg.  
(4) Vine in thickets + hedgerows with interesting pairs. Petals red-orange.

det Kew 1977. (A) → K

---

Near Pucartambo on road to ~~Pittabata~~. Alt. 9500 ft.  
Alta Acacacu.

G#H  
USM 4910. Fuchsia Onagr.  
(2) Shrub, 2 m. Infl. pendant. Ovary ~~light~~ light green. Hypanthium + sepal ~~light~~ pink. Petals deep reddish pink.

G#H  
USM 4911. Cuscuta Cuscut.  
(2) Parasitic vine on Scopa Broom. stems purplish. Fls. cream.

K  
GTH 4912. Solanum (sect. Holophyllum)  
(2) Shrub in open place along  
quebrada, 3 m. Corolla yellowish.  
seed PTBG FRS. purple. det A. Chitt 75

K  
GTH 4913. Solanum luteo-album Pers. det. M. Nee 1982  
USM (A) Treelet 3 m. in thicket along  
road. Corolla violet.  
F det Moldenke 1975

NY  
USM 4914. ~~Heisteria~~ Aegiphila mortonii Moldenke Verbenaceae  
US GTH (A) Treelet 4-5 m. Fls. creamy  
white. FRS. green.  
(A) → K

USM 4915. feru  
F (8) Terrest. fern with horizontal  
rhizome. Lvs. 2.5 m. long, petiole  
1 m., with 17 prs. of pinnae.  
HB

USM 4916. ~~Psoralea?~~ Collaea speciosa Dc. Leg.  
GTH (2) Shrub 4 m. tall in hillside  
thicket. ~~Fls.~~ pink. Calyx brown.  
det. V. Rudd 1977.

GTH 4917. Passiflora Passifl.  
(1) Vine in thicket. Calyx dark green.  
Corolla tube lt. green. Sepals dark  
red abaxially, pink adaxially. Petals  
pink.

4918. *Asclepiad.*  
Gitt (1) Vine in thicket, Corolla pale greenish yellow with brown spot at base on abaxial side. Frs. green.

4919. *Serjania* *Sapindac.*  
USM (2) Vine in thicket. Frs. creamy yellow.

F  
USM  
L  
NCH  
4920. *Azolla* *Azollac.*  
(3) Floating aquatic in drainage ditch along road.

Gitt  
USM  
U  
4921. *Elodea*  
(3) Rooted aquatic in drainage ditch along road.

---

Above Puarantambo on road to ~~Pita pita~~. 9800 ft. Open thicket. *Nbra Acnacu.*

Gitt 4922. *Bomarea* *Amoryll.*  
U. (2) Vine in thicket. Peduncle prostrate and pedicels greenish with dark red. Ovary red-purple. Sepals red orange abaxially, yellow orange adaxially. Petals yellow orange with dark red spots on abaxial surface.

(A) GB

Comp.

GH 4923. Mutisia lanata R. + P. det. E. H. Zardini 77  
USM (4) Vine in <sup>the</sup> thicket. Rays bright red,  
F yellowish at base. Styles red. Disc  
K yellowish.

proboscidea Benoist

Solan.

GH 4924. Salpicchroa cf. hirsuta (Meyen) Miers  
USM (7) Herb. vine in thicket. ~~Stems~~ Twigs,  
F petioles + major leaf nerves red. Calyx  
MO tube green, lobes <sup>green to</sup> dark red. Corolla tube  
BIRM → K dull red, lobes yellowish, bright yellow  
K at thickened sinus. det. S. Keel 1983.  
COL  
US

(A) → NY

4925. Lathyrus Leg.  
USM (2) Vine in thicket. Calyx black. Bracts  
GH deep blue-violet. Wings <sup>bluish</sup> white. Keel  
creamy white with purple tip.

4926. Calceolaria Scroph.

GH (1) Scandent herb in thicket. Calyx  
lemon yellow. Corolla golden yellow.

4927. Calceolaria Scroph.

USM (2) Scandent herb forming thicket.  
GH Calyx green. Corolla lemon yellow.



6740

Alt. ~~6000~~ ft. Road from Pillopuzata to Santa Isabel. Cloud forest. 4 Feb 75

4926. ~~Luzuriaga~~ Bomarea distichophylla (R. & P.) <sup>Baker</sup>

Seed (6)

Cuzco

4 US GT F

Herb on wet roadbanks. Pedicel + calyx green. Corolla red-orange. FR. orange.

(A) → GB

4929. Cyphomandra

Solan.

USM Seed (5) GT BIKM → K F

Treelet along road in thicket, 3 m. tall. FRs. pendant, yellow orange. seed: PTBT

4930. Lamerouxia

Scroph.

Seed (3)

Herb 1/2 m. on open hillside.

Corolla pink.

→ Saurauia loeseneriana Busc.

det. D.D. Soejarto 1984

4931. Saurauia cf. putumayonis R. E. Schult.

Seed (3)

Treelet 3 m. Petiole, midrib peduncle red. Calyx greenish. Corolla white. FR. green. det. Soejarto 1982.

4932. Ilex

Aquif

Seed (4)

Tree 6 m. Fls. creamy white. FR. black at maturity.

4933. Gunnera bolivari

Gunnerac.

(3)

Herb on hillside. Pedicel, stipe, & infl. dark red.

GT Cuzco F

GH F. Cusco C 4934. Helosis (ayemensis (su.) Spr. Belanophora  
(3) Root parasite in thick humus.  
Peduncle + infl. red.  
Det B. Hansen 1976.

GH USM 4935. (2) Terrestrial fern in <sup>wet</sup> shady hillside forest. Fern

GH 4936. Asplenium?  
(2) Ter. Fern on steep west hillside forest.

Selby GH 4937. Parakohleria sp. Gesneriac.  
(2) Herb 1 m. in wet shady forest.  
Calyx pale green. Corolla red, dull yellow  
within with dark red spots on limb.  
det H. Wiehler 75

GH SEC DBA? 4938. Becleria pallidiflora Fritsch Gesneriac.  
(3) Herb to 2 m. Calyx lt. green.  
Corolla orange. det Wiehler 1975

GH USM F 4939. Elaphoglossum  
(3) fern on steep roadbank.

USM GH 4940. Pityrogramma  
(2) Fern on cliff in wet forest along  
quebrada. Waxy white underneath.

F  
LSM  
GH

4941. Asplenium

(3) Fern on roadbank.

4942. Anthurium

Arac.

(1) Terr. herb in wet forest.  
lvs. dark green, rugose. Spathe  
lt. green. Spadix green.

4943. Epidendrum

Orchid.

U.  
AMES

(2) Orchid on steep open roadbank.  
Calyx + corolla deep pink. Column  
red dish. Lip lobes pink, white at  
septa with yellow spot.

4944. Epidendrum

Orchid

AMES

(1) Orchid on steep open roadbank,  
Calyx + corolla deep salmon pink.  
Column + lip same. Lip with orange  
callus.

4945. Epidendrum

Orchid.

U  
AMES

(2) Orchid on steep open hillside  
Fl. pure white.

4946.

Orchid

(1) Orchid on steep open hillside

Fls. pale pink, lip with yellow spot.

AMES 4947. Ellantheus Orchid.  
U (4) Orchid on steep open hillside.  
cusco Bracts magenta pink. Fls. pink  
near base an infl.; white above.  
F

GH 4948. Begonia Begon.  
(1) Succulent herb on wet roadbank.  
Ovary pale green turning red.  
Petiole with abaxially deep pink,  
adaxially pale pink.

GH 4949. Crotalaria nitens H.B.K. Scroph.  
CUSCO (3) Herb 0.5 m. on roadside.  
F Calyx pale brown. Corolla pale  
yellow, banner red adaxially.  
det C. Niezgodka 1976.

GH 4950. Gurania Cucurb.  
CUSCO (2) Vine in thicket along road in sun.  
Peduncle green. Petiole orange.

GH 4951. Eupatorium Comp.  
CUSCO (3) Herb 1.0 m. on <sup>wet</sup> roadbank.  
US Fls. pale blue-violet.

det D. Simpson 1977.

Alchornea pearcei vel. aff.

4952. Conceveiba guianensis Aubt. Euphorb.

(3) Tree 8 m. on ~~road~~ hillside.

Fks. green, with red blush.

Stigmas red. det D. Simpson 1976.

4953. Desmodium molliculum (HBK.) DC.

(3) wet roadbank. Vining herb

Calyx red. Corolla purple to blue.

det. T. Plowman 1902.

4954. Erechtites valerionifolia (Wolff) DC. / Lactuceae

(1) Herb on road side. Fls. deep

pink.

Det E. Jardim 1977

4955. Anthurium

Arec.

(1) Terr. ~~road~~ herb on open road-

bank. Lv. coriaceous. Spathe

lt. green. Spadix reddish.

4956. Munnozia gigantea (Rusby) Rusby

Composit.

(2) Herb 0.5 m. on wet road-

banks. Lvs. covered with white

indument. Fls. yellow.

det. H. Robinson 1979

4957. Psammisia cf. coarctata (R. & P.) A. C. Sm. det

Ereac.

(3) Slender shrub on wet

open roadbank. Pedicel, ovary,

calyx red. Corolla: lower 2/3 red,

det. J. Luteyn 83

GH  
Cusco  
F

ASM  
GH  
F

GH  
univerte

GH

GH  
US

Cusco  
F  
GH

upper  $\frac{1}{3}$  + lobes white.

4958. Physalis

Solanac.

G# (2) Herb 1 m. on roadside. Calyx  
DKH → K green. Corolla lt. yellow with 5  
dk. brown spots at base. Calyx in fruit  
yellow-green. Fr. dull orange.

4959. Lycopodium

Lycopod.

Cuzco  
G# (2) Vining herb prostrate on open  
hillside.

4960. Vigna

Guttif.

NY (3) Tree 8 m. Lvs. rubbery, rusty be-  
neath. Calyx lt.-green. Corolla cream.  
Filaments white. Ovary orange, styles  
white.

4961. Sida

Liliac.

U. (4) Herb. Vine 8 m. tall. Ripe fruits  
dark orange - seed PTBG

4962. Peperomia

Piperac.

G# (2) Succulent epiphytic herb in wet  
forest. Spike yellow-green.

4962-A.

Discomycete

NY In quebrada. On <sup>tend</sup> wooden forest.  
Thallus yellow.

F 4963. Piper Piperac.  
Cusco (3) Treelet 5 m. in wet forest.  
GHT ——— Spikes yellow-green.  
4

GHT 4964. Piper Piperac.  
(1) shrub 3 m. Lvs. rubbery.  
Spikes pale green.

GHT 4965. ~~Siphonanthus~~ Zelano <sup>umbrosus F. Wimmer</sup> det. Stein 88  
Cusco (3) ~~Herb~~ <sup>Herb</sup> 1-1.5 m. Calyx green.  
F Corolla carmine pink. In wet forest.  
det C. Wierzboda 1976.

GHT 4966. Piper Piperac.  
(1) Shrub 2 m. in wet forest.  
Spikes pendant, dark green.  
det LB Switz 76

GHT 4967. Begonia parviflora P. & E. Rubiac.  
Cuzco (5) Herb to 4 m. tall in wet forest.  
F Perianth white, stamens yellow. Ovary green white.  
US Petiole with red excrescences.  
K Lvs. reddish beneath.  
see PTBG

4968. Psychotria sp. aff. P. albertsmithii <sup>Standl.</sup> Rubiac.  
GHT (2) Shrub 2-3 m. in wet forest.  
F Rachis + fruits green.  
det. D. Simpson 1976.

GH 4969. Croton Euphorb.  
(1) Tree 20 m. tall, trunk 30 cm.  
Bark pale grey. Ovary reddish.

GH US 4970. Anthurium amoenum Kunth. ex Schott  
(2) Terr. herb in wet forest. Spathe  
topathe light green.  
det Dan Nielson #6.

HBS  
F  
GH  
USM  
MICH  
US  
U  
4971. Nephelea cuspidata (Kze) Tryon  
(9) Tree fern with trunk 5 m.  
tall. Leaves 2-3 m. Pinnae 30.  
det. R. Stolze 1980.

Cusco  
GH  
U  
4972 Pilea Urticac.  
(3) Shrub 1.5 m. Infl. greenish  
yellow.

GH  
F  
4973. Polypodium REMOTUM DESV. Polypod.  
(2) Fern on rotten log in wet  
forest.  
DET. R. TRYON 1989

USM  
US  
GH  
4974. Miconia sp. Sect. Cremanium Acalatom.  
(3) Shrub 1.5 m. Young ovary pur-  
plish, maturing bluish white,  
det Wunderlich 1975.

GH  
CUSCO  
4975. Siparuna Monim.  
(2) Shrub 3 m. Fls. yellowish.  
Frs. yellow red.



A.C. Smith

4976. Corandishia martii (Meesen) Ericae.

(2) Scandent shrub on steep  
open roadbank. Rachis reddish,  
Ovary green. Corolla creamy  
white. det. Luteyn 1982

4977. Pououa cf. jussieuana Mart.

(4) Palm with stem 2 m.  
in wet forest along quebrada.  
Rachis green, red at maturity.  
SF2mms white. det. H.E. Moore, Jr.

4978. Piper augustum Rudge (?) Aperac

(4) Treelet 3 m. Spike green.  
In wet forest. det. w. Burger 1981.

4979. Nautilocalyx sp. nov. Genneriad.

(3) Herb 1 m tall. Bracts  
pale green <sup>white</sup>. Calyx + Corolla  
tube creamy white. Lobes  
dark maroon. Fks. green, purple  
within. det. Wiehler 75

4980. Peperomia Piperac.

(2) Fleshy herb terr. Lvs.  
reddish underneath. Spike  
pale green.

GH  
F

GH  
U  
CUSCO  
BH

(A) → K

CUSCO  
U  
F  
GH

GH  
SEL  
DBW?

seed PTBG

GH  
F

Kosñi\_pata Valley  
4 Feb / 75

4981. Heliconia subulata R. + P. Musae.

U (2) Herb 2-3 m. tall in wet forest.  
Gtt Rachis + bract red, narrowed  
upper part green. Pedicel red.  
Ovary green. Perianth yellow.  
det. L. Andersson 1984

4982.

Gtt (1) Herb 1 m. on open roadbanks. Campsul.  
Calyx dark purplish green. Corolla  
red-orange.

Gtt 4983. Pitcairnia odontopoda Baker Bromeliaceae  
Tern-herb on steep open  
roadbank. Rachis + calyx  
lt. green. Corolla red.  
det L.B. Smith 1976.

Alt. ~~3000~~ ft. 5 Feb 75  
6100

Gtt 4984 Reuelinia thyrsoides (R. + P.) P. + E.  
U (2) Herb 3 m. tall on steep  
cliff along quebrada. Bracts red.  
Ovary white. Calyx + Corolla + lobes yellow.  
FR. red. Solms-Laubach

4985. Hedyosmum racemosum (R. + P.) Chloranth

Gtt (2) Tree 6 m. Fls. green. FRs.  
U white. det. C. Todzia 1986.

4986. Parakohleria sp. Gesner.  
GH (1) Herb 1 m. on steep cliff in  
wet forest. Corolla yellow,  
det Wiehler 75

4987. Centropogon yungasensis. Campanul.  
GH (1) Herb 1 m. on wet roadside.  
Pedicel, ovary, calyx green.  
Corolla red orange at base,  
grading yellow orange towards tip.

5000 ft. alt.

F  
USM  
GH  
U  
4988. CYATHEA fern  
(6) Tree fern with trunk  
3 m. Leaf 2 m. with 34  
pinnae.

(Rusby) Wiehler

DBN  
Selby  
GH  
4989. Corytoplectus riceanus Gesner.  
(3) Herb 1 m. Lvs. dark green  
above, red purple below.  
seed Calyx bright red. Fns. purplish.  
det Wiehler 75

0501.  
GH  
US  
4990. Pityrogramma EBENEA VAR. AURATA  
(3) fern on mud banks along  
quebraba, Lvs. white underneath.  
DET. D. B. LELLINGER 1989

5 Feb 75

Stromantha sp.?

4991.

~~Myrosma~~

Marant.

(A)

Herb to 2 m. tall along quebrada in forest. Bracts white. Calyx white. Corolla white. Labeled purple. Ovary orange. det HK, 1978.

U (4)  
USM  
HK → F  
GH

4992.

Thymelaeac.

GH (1)

Treelet 3 m. Fls. yellowish. FRS. orange. Lvs. dark green above, whitish beneath.

GH (4)  
U  
CUSCO

4993.

Renealmia thyrsoides (R+P.) P. + E.

Zingib.

Herb 2 m tall. Bracts red. Ovary white. Calyx red. Sems reddish brown.

CUSCO  
GH (2)

4994.

Araliac.

Treelet 2-3 m. FRS. creamy-white.

Alt. 3900 ft.

US  
U  
GH (3)

4995.

Meriania hexamera Sprague det Wunderlich 1975

Shrub 3 m. on cliff overhanging road. Ovary dark red purple. Corolla magenta-pink. Stamens yellow.

Alt. 4000 ft.

4996. Costus guanaiensis Rusby Zingib.

(3) Herb 2 m. on steep wet road-  
bank. Bracts green with brownish  
margin. Bracteoles <sup>pale</sup> greenish  
~~green~~ cream. Ovary creamy yellow.  
Calyx pink, lobes pale green.  
Corolla yellow-orange. Labellum  
red orange, lip deep yellow with  
<sup>gold</sup> deep yellow stripe. Stamen pale  
yellow.

Cusco  
U  
GH

PERU: Dept. Cuzco. Prov. Paucartambo.

Pilcopata. 6 Feb 1975.

Alt. 720 m.

Road Pilcopata-Patria (towards  
Paucartambo), near Pilcopata,  
slightly disturbed 1° forest.

4997. Toxoca quadrialata (Wand.) Meliast.  
Neslost.

(2) Shrub 1 m. Calyx pale yellow green  
with pink hairs. Petals pale pink.  
Ovary in fruit dark purple, calyx  
red. det Wurdack 1975

US  
GH

4998. Schindleria densiflora (O. Ktze.) Monachimo  
Phytolacca

GH (A) (3) Herb in forest, 1-1.5 m. Lvs.  
Cusco green above, with velvety sheen, br. red-purple  
F beneath. Infl., pedicels + fis. lt. yellow-green  
(A) → K det. C. Mesgoda 1976.

4999. Palicourea subspicata Huber Rubiaceae

GH (2) Unbranched shrubs 1-1.5 m. in  
F forest. Peduncle dark brownish green.  
Rachis and pedicels red. ~~Fls.~~ ~~orange~~ red.  
Calyx red. FR. dark green.  
Corolla yellow. det D. Simpson 1976

5000. Brouffelsia mine Monzchino. Solanec.

GH (3) Subshrub 1 m. tall in wet shady  
F forest. Lvs. dark dull green above, pale yellowish  
K green beneath. Corolla deep violet with white  
eye, fading to pale violet. Calyx cream.  
Only one seen.

5001. Leandra secunda (Don) Cogn. Melastom.

(3) Herb in forest understorey.  
USM Calyx lt. green. Fls. white. FR. dark purple-  
US black.  
GH

5002. Lycianthes glandulosa (R. & P.) Bitter Solanec

GH (4) Vine in thicket in low swampy  
forest. FRs. bright red-orange.  
Calyx green. det A. Child + R.N. Hester 1975

GH 5003. Dichorisandra Commelinac.

U (3) Herb. vine in 2° forest. Corolla  
F white. FRs. green

aff. → Pseudoveitchiana Kennedy

5003-A. Calathea veitchiana Hook.

Live Herb 1-1.5 m. tall. Sterile. Lvs. di-  
photosyn waxes facious, purple beneath, pattern lt + dark green  
above

Cult: AA  
F  
photosyn waxes

GTH 5004. Myrosma cannifolia L.f. Marant.  
HK ~~Myrsine~~ det HK 1978.  
(2) Low herb in forest. Bracts  
light green. Fls. creamy white?  
Calyx ~~to~~ hyaline green.

GTH 5005. Piper angustum Rudge vel sp. aff. Solmes.  
F (2) Herb 1 m. along ~~trail~~ in forest.  
Peduncle red. Spike cream.

GTH 5006. Solmsium Solmes.  
(1) Corolla creamy yellow. Herb 1 m.  
tall in forest.

F 5007. Piper tectoniifolium Kunth. Piperac.  
CUSCO (3) Shrub 2.5 m. along trail in  
forest. Spike cream, greenish in  
fruit. det. R. Colleyas 1982.  
GTH

GTH 5008. Apocyn.  
K (2) Vine in open thicket along road.  
Calyx dull red. Corolla bright red.  
Stem with milky latex.  
A → MO

GTH 5009. Bauhinia globra Jacq. Sensu Wunderlin  
CUSCO (3) Tree 6 m. tall on roadside.  
F Calyx light green. Petals white.  
Fls. yellowish green. det C. ~~Wunderlin~~  
det TP. 1976.

Gram. -

5010. Cryptochloa unispiculata Soderstrom Bambusoid.  
U.S. UNCAT (10) Herb in forest understory.  
det. T. Soderstrom 1981

5011. Costus acreanus (Loes.) Maas Zingib.  
photo pickled (A) Herb 2.5 m. tall along trail in  
seed fst. clearing. Bracts dark red, green  
near tip on abaxial surface. Bracteoles  
red. Ovary white. Calyx red, lobes  
tipped light green. Corolla white.  
(4) Labellum white, Stamen pink.  
with pale yellow stripe.

U  
USM  
G4  
F

5012. Iriartea sp. <sup>cf. ventricosa</sup> Plumeae  
(B) Tree 20 m. tall in forest.  
Cusco Sheath 2 m. Lvs. 5 m. long. Infl. axis  
BH pale green. FRS. light green, maturity  
G4T black.

5013. Renoualmia breviscapa R. + P. Zingib.  
(5) Herb 2 m. tall in forest along trail.  
Infl. axis light yellowish-green. Bracts  
light green. Ovary greenish orange, <sup>to reddish</sup>  
maturing black. Calyx inflated in  
fruit; orange. ~~Fl.~~ Arit yellow-orange.  
US Seeds dark brown.

U  
USCO  
F  
G4T  
US



Centropogon cornutus (L.) Druce

5014 ~~Siphocampylus~~ det C. Niezgodka & Campanella

GH  
F  
Cusco

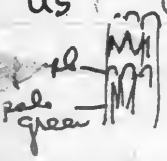
(3) Subshrub 2.5 m. tall along trails  
in forest. Calyx light green. Corolla  
light carmine pink.

(A) → K

Gram. -  
Bambusoid

5015. Pariana

US



(1) Herb in forest floor. Culms  
purple.

5016. Colothea aff. peruviana

Morant.

foto

FI (A)

GH

Herb 1-1.5 m. tall. Bracts pale  
green with cream margin. Proctodes  
hyaline pink. Calyx white. Corolla  
white abaxially, white with purple  
stripes adaxially; stem node pale yellow.  
Lvs. med-green above, paler grey green beneath.  
shiny dull

5017. Monotagma laxum (P. & E.) Schumann  
DET. M. HAGBERG 1990 Morant.

(3) Herb 2 m. tall in forest. Lvs. papyr-  
aceous, shiny dark green above, lighter  
green shiny beneath. Peduncles green.  
Bracts yellow green. Calyx hyaline pink.  
Corolla tube white; lobes pale green. Stem  
nodes + stem pale plum pink.

U  
HK F

Near Pilcopata on road to Villa Carmen. 20 ft.

- GH  
F 5018. Piper longestylosum C. DC. <sup>erect</sup> det. R. Callejas 1982.  
(2) Subshrub 1 m. Spikes greenish.

Drymonia

- SEL  
GH? 5019. ~~Asplenium~~ erythroloma (Lwbg.) Wiehler det. Wiehler 75.  
(2) Vine in thicket along road. Bracts dark red. Calyx dark carmine red. Corolla waxy yellow, with red tint on lower 2 lobes on inside. FR. dark red.

5020. Piper

Piperac.

- GH  
F (2) Shrub 2 m. along road in forest. Lvs. dark green above, shiny, rugose. pale green beneath, dull with dark brown-purple nerves. Spikes erect, pale green, lt. brown at maturity.

5021. Centropogon ~~gemoseptus~~ roseus Rusby det. B. Stein 1988  
gemoseptus Zucc. (Synonym)

- GH  
F fl. (A) Subshrub 2 m. in thicket along  
Foto. road. Calyx lt. green. Corolla <sup>deep</sup> pink.  
(2) ~~A~~ → K det. B. Stein 1985.

5022. Clitoria sp. (not matched at F) Leguminos.

- GH  
F (2) Vine in thicket along road. Bracts yellow-green. Calyx rusty brown at base, cream towards tip. Banner brownish purple. Wings + keel creamy yellow. Lvs. silvery beneath.

GH 5023. Miconia nervosa (Sw.) Triana. Melastom.  
(1) Shrub 2 m in open thicket  
along road. Calyx red. Ovary  
yellow green turning red. Fls. white.  
det Wunderl 1975

GH 5024. Piper Piperac.  
(2) Treelet 5 m. Spikes erect;  
F light brown.

US 5025. Pariana Gram.-  
Bambusoideae  
(1) Herb in thicket along trail.  
Culms reddish at base. Spikes light  
green, (same as 5038)

GH 5026. Calathea sp. Marantac.  
(2) (A) <sup>F</sup> Herb. 7 m. tall. Bracts dull  
green with red <sup>brwn</sup> tint ~~red~~ margins.  
Bractlets hyaline, cream. Calyx  
creamy white, lobes tipped purple.  
Corolla yellow. Staminode + Stamen  
yellow.

U 5027. Costus aff. guanotensis Rusby  
(1) Herb 3 m. tall. Bracts  
red below, yellowish green above. Ovary  
white. Calyx red. Corolla pale red-orange  
(<sup>orange</sup> pink). Labellum + stamen red-orange.

Monotagma PLURISPICATUM (KOERN.) K. SCHUM.

5028. ~~Stromanthe~~ DET. M. HAGBERG 1990 Marant.

#K ← (2) Herb 2 m. tall in forest margin along trail. Lvs. dark green above, paler grey green beneath, dull both sides. Bracts pale yellow-green. Fls. calyx hyaline. Corolla pale purplish brown. Lobes creamy white. Stamen purple brown.

GHT  
F?

5029. Costus aff. guanariensis Rusby Zingib.

U (2) Herb 2 m. Ligule ~~red~~ red-brown. Bracts dull red-brown beneath, exposed part light green, veined. Ovary white. Calyx red. Corolla pale pink. Lobes pale pink with yellow <sup>medial</sup> stripes.

U  
GHT

Stromanthe confusa Schum. Marant.  
5030. ~~Hylociclus~~ det. H.K. 1978.

U (3) Herb 1.5 m. tall in forest margin. Bract green with hyaline margin. Calyx pale green. Corolla white. Stamens white with blue violet margin. (Fls. small)

U  
H.K. ←  
GHT  
F

5031. Peullinia Sejonia Sapind.

GHT (1) Vine in thicket. Fr. carmine red. Seed black. Aril white.

GHT

5032. Anthurium Arac.

GHT (1) Herb on ground in forest margin. Infl. erect. Spathe lt. green. Spadix brownish purple.

GHT

det Wurdach 1975

5033. Miconia aurea (Don) Naud.

Melastom.

USM  
Cusco  
US  
GIT

(3) Tree 6 m. tall in forest margin along road. Ovary white. Calyx pale pink, <sup>1 lobe</sup> tipped green. Corolla white. Stamens magenta pink.

Marant.

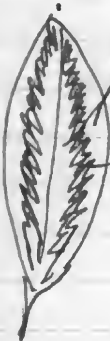
5034. Hylaeanthus unilateralis (P. & E.) Jank. + Jank.

F  
U  
HK ←  
GIT  
COL

(3) Herb 1 m. tall in forest margin. Bracts lt. yellow green. Calyx hyaline white. Corolla <sup>hyaline</sup> white, lobes brownish purple. Stem node white below, limb yellow. det HK

5035. Calathia cf. peruviana Koern.

Marant.



(3) Herb 0.5 m. tall on forest margin. Lvs. dark green above, sometimes with pale grey-green markings. Beneath pale grey-green (~~to yellowish~~). Bracts light green. Bractlets very pale green. Calyx pale yellow-green. Corolla pale ~~yellow~~ cream. Stamens golden yellow. det HK 1978

U.  
HK ← (A)  
GIT  
F

¥ Feb 75

Picospata.

5036. Bumfelia mire Monachino

Solanec.

(3) Unbranched shrub 1 m. tall.

GH

Lvs. rubbery, coriaceous, dark green above, dull; yellow green beneath.

K

F (ex cult.)

Bract lanceolate, yellow-green.

cutt. F

cuttings to

Lyon Arb.


24 Aug 1982.

Univ of Minn

19813

HCA → 6/1987

Pedical + calyx cream with subtle purplish hue. Calyx lobes convex, lobes extending partially or all the way to base of calyx tube.

Corolla tube very pale violet  1-sect.

heavily white. Corolla limb very pale violet beneath, pale violet above with white spot at center, 8 mm. diameter. (= Plowman 12023 in cult.)

Villa Carmen

pescapraeifolia Britt.

F 5037. ~~Agave~~ Bythneria

Stercul.

USCO (2)

Vine in thicket. Perianth pale green. Stamen yellow. det. T. Plowman 1978.

GH

5038. Pariana

Gram. +  
Bambus.

US (1)

Herb in forest floor. Spike green

5039. Pentagonia

Rub.

GH (2)

Unbranched shrub 1-2 m, stipule red. Calyx red. Corolla yellow.

F

GHT  
Curo (2)

5040. Ficus

Mozc.

Large tree 15 m. Frs. yellowish green with dark red longitudinal stripes.

U.  
USM  
US  
GHT

5041. Miconia persicariaefolia Cogn. Melast.

(4)

Shrub 2 m. on rocks along river. Fls. pure white. det Wunderlich (1975)

Chrysoleuca

5042. Calathea aff. ~~sp. sp.~~

Mozc.

(1)

Herb in forest along trail. Lvs. dark green above, pale green beneath. Bracts green. Calyx white. Corolla tube white, lobes pale yellow. Stamens yellow.

U.  
USM  
HK  
F  
plants

DBN  
SEL

5043. Nautiloclyx sp. nov.

Geniv.

(3)

Herb 0.5 m. Lvs. dark green rugose. Bracts & calyx pale green. Corolla creamy white throughout. det H. Wickle 75

GHT

5044. Calathea cf. capitata (P. + E.) Koern.

(2)

Herb 2 m. Lvs. dark green above, red-purple beneath. Bracts green. Fls. pale yellow

live-winner

[ D. lorentense Krause det. K. Baker FMNH ]

det. M. Madison 76.

5045 Dracontium longipes Engl.

GH (4)  
Cusco  
US  
F

Herb. Petiole 2 m. long, with roughish snake-like pattern. Lvs. ternate, much divided. Spathe dark purple-brown. Spadix dark brown.

MADRE DE DIOS: Prov. Manu.

Road from Piscapata to Shamfuya, 5 Feb 75. Haliza-Saluzion 650m

(Type)

5046. Renealmia pallida Maas sp. nov.

Zingib.

GH  
USM  
U  
foto  
(3)

Herb 6 m. tall in 2° hillside forest. Infl. 2 m. tall. <sup>lower</sup> Bracts light green, speckled red. Upper bracts pale pink becoming pale creamy yellow to greenish. Bracteoles pale pink above, creamy white ~~below~~ towards base. Rachis creamy white. Ovary cream. Calyx pale cream-pink. Corolla pale yellow. Labellum pale yellow. Fruits very pale cream, calyx remnants white. At maturity fruits, <sup>purple</sup> black. Aril red-orange. Seeds brown-black with golden yellow funiculus.

live: El Al Foster Bot. gardens



ssp. thysoidea Zingib.

5047. Renealmia thysoidea (R. + P.) P. + E.

(2) Herb 4 m. tall on steep hillside. Bracts <sup>lower</sup> dark reddish brown. Rachis pink. Upper infl. bracts red-orange. Bracteoles cream below, pink-orange toward tip. Pedicel pink. Ovary white. Calyx corolla pink near base, yellow orange toward apex. Corolla tube pink in lower half, deep yellow toward apex. Lb bellid & stamens deep yellow. Young fruit pink, calyx pale orange.

U. foto  
GTH

E. feijoi Berg

5048. Eugenia aff. E. cuspidifolia DC. + Myrt.

(2) Shrub 1.5 m. in 2' forest. Fr. cauliflorous on stem, light green. det R. McLaughlin fl

GTH  
MCH

subsp. gutiérrezii (O. Kuntze) Mez Zingib.

5049. Dimerocostus strobilaceus O. Kuntze

(2) Herb in wet place along road 3-4 m. tall. Bracts light yellow-green. Calyx pale green. Ovary pale green. Calyx yellow-green. Corolla cream. Labeled cream

PTBS seed  
U.  
GTH

beneath (abaxially), light yellow  
adaxially with golden yellow hairs.  
Stems cream, special epidermal  
pale yellow.

5050. Leandra dichotoma (Don) Cogn. Melastom.

USM. (3) Shrubs in swampy forest along  
US seed road. Lvs. dark green above, pale  
green beneath. Petiole, stem + rachis  
+ ovary with red hairs. Petals + filaments  
white. det Wurdack 1975.

5051. Quararibea Cucurb.

(1) Vine in 2° forest on hillside.  
Hypanthium + sepals bright  
red orange. Petals <sup>deep</sup> yellow, Anthers  
cream.

Near Pilcopata on road to Shintuya.

5052. Calathea gigas Gagn. Marant.

(5) (A) + HK Herb on roadside in forest margin  
2 m. tall. Lvs. yellowish green  
above, pale greyish green.  
Peduncle light green. Bracts  
light green, yellow orange toward  
base, pink at margin. Bracteoles  
carmine pink, yellowish toward

U  
USM  
GH  
F

foto  
two

base. Pedicel yellow. Calyx pink, greenish yellow at tip. Corolla tube creamy yellow, lobes pale greenish yellow. Staminate creamy yellow, with pale purple spot near apex on abaxial surface. Stamen creamy yellow.

Peku: Dept. Madre Dios. Prov. Mazu.  
Q. Feveireira 15. south of Shintuya  
on road to Salvación. Alt. ca. 600m.

Flooded low forest along road.

5053, Piper

Glt 111 Herb 0.5 m. in swampy forest. Lvs. bluish green above, Piperac.

5054 A COSTUS sp. nov.

Cult. Harvard Forest, Petersham, Mass. beneath.

Herb 1 m. tall with 4 stalks. Leaves dark green above, dark red purple, hairs whitish on both sides.

Breets firm, light green where exposed, red basally, appendages light green, occasionally tinged red Zingib.

abaxially. Calyx light red. Lobes light green. Petals pale creamy white. arb

Rebellum tube creamy yellow, limb white, striped with red, with central yellow stripe abaxially. Stamen appendage reddish with abaxially yellow stripes below tip. near

Flowered 6 Feb 1977.

F, AA, U, K'lach.  
BH

Loc: SI AL, Hart, Selby, U. Chic, LYON

= 13044

base. Pedicel yellow. Calyx pink, greenish yellow at tip. Corolla tube creamy yellow, lobes pale greenish yellow. Staminate creamy yellow, with pale purple spot near apex on abaxial surface. Stamen creamy yellow.

Pérez: Dept. Madre de Dios. Prov. Mazu.  
♀ fevereiro 15. south of Shintuya  
on road to Salvación. Alt. ca. 600m.

Flooded low forest along road.  
553, Piper Piperac.

(1) Herb 0.5 m. in swampy forest. Lvs. bluish green above, somewhat shiny, red-purple beneath. Sterile.

5054. Costus sp. nov. Zingib.

(3) Herb <sup>to</sup> 1 m. tall. ~~Spike~~ dark purple. Lvs. dark to black green above with light brown hairs. Shiny beneath, dark wine red. Bracts light yellowish green, red toward base. Ovary white. Calyx red. Seeds black.

Loc: El Al, Hart, Solby, U. Chic, Lyon = 13044

U  
USM  
GH

5055. Solanum:

Solanec.

Alzco (2) Shrubs 1 m. tall. Lvs. subcoriaceous. Fks. cream with dark green reticulate pattern above.  
GTH

Forest on steep hillside along quebrada.

5056. Brouffonia minor Monachino Sol.

ECON

Herb 1 m. in forest. Sterile.

5057.

Cyperac.

Unco (2) Rosette herb 1.5 m. tall. Spikes brown.  
GTH

5058 Pariantia sp.

Gram.  
Bambusoid

(2) grass in forest floor.  
det Soderstrom 1975

5059. Lunania parviflora Spruce ex Bth. Flacourt.

(1) Shrub 2.5 m. in understory. Rachis lt. green. Fks. yellowish.  
det. Steumer 1980.

5060. Calathea aff. microcephala det HK 1978

(1) Herb in forest. Lvs. med-green above, pale green beneath. Bracts lt. yellow green.

5061. Besleria sp. nov.

Genesid

(3) Herb<sup>to</sup> 1 m. Rachis green. Pedicel yellow orange. Calyx orange. Corolla orange.  
GTH  
SEL  
DBN  
det Wiehler

5062. Geonoma cf. bronniartii Mart. Palm.

(6) Small palm, trunk 1 ft. tall;  
 Cuzco Lvs. 2 m. Rachis yellow green  
 BH turning red. Frs. pale green  
 GHT turning black.  
 U det H. E. Moore, Jr.

5063. Caladium Arac.

GH (1) Herb, acaulescent. peduncle  
 spathe green. Young frs. creamy  
 white.

5064. Bulliria Sapindac.

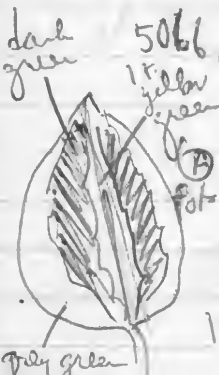
Cuzco (2) Vine in thickets. Fruit red.  
 GHT

5065. ?

Seed (1) Treelet 3 m. in understory  
 GHT FR. yellow. Mesocarp white.  
 Seeds white embedded in clear  
 gelatinous matrix.

5066. Calathea cf. undulata Marant.

Herb on forest floor. Lvs. dark  
 green above with pale green  
 area around midrib. Bracts  
 lt. green. Fls. <sup>pure</sup> white. <sup>red purple</sup> perianth.



(3) U.  
 HK ← (A)  
 GHT F

5067. Stychnos tarapotensis Sprague + Sandw. <sup>Logan.</sup>  
(2) Shrub 2.5 m. Fl. buds lt. green.  
Fr. dark green. det B.A. Kruckhoff 1977.

GH  
NY

5068. Gurania <sup>Cucurb.</sup>  
(1) Vine in thicket. Hypanthium  
orange.

GH

5069. Psychotria trivalis Rusby <sup>Rubiace.</sup>  
(3) Treelet 5 m. with spreading  
branches. Fls. lemon yellow.  
det D. Simpson 1976.

USM  
GIT  
F

5070. Clidemia procumbens Gleason <sup>Melast.</sup>  
seed Subshrubs 0.5-1 m. tall. lvs.  
(3) dark green above, pale yellow green  
beneath. Rachis br. magenta pink.  
Frs. pale blue. det Wurdack 1975

USM  
US  
GIT

5071. Pseodiflora RIPARIA MAST. EX MART. <sup>Pseodifl.</sup>  
(3) Woody vine in 2' forest. Bracts,  
calyx + corolla creamy white, tinged  
with pink. Corona banded white  
with dark wine red.  
DET. J. E. LAWESSON + L. HOLM NIELSEN 1987

Cuzco  
GH  
F

5072. Paullinia alata <sup>Sapind.</sup>  
(3) Woody vine in thicket. Fls.  
cauliflorous, creamy white. Frs.  
still green.

USM  
F  
GH

US 5073. Mendoncia glabra (Poepp + Endl.) Nees <sup>Acanth.</sup>  
(2) Vine in thicket. Bracts  
light cream. Corolla creamy  
white. det D. Wasshausen 1975

GIT 5074. Lycianthes <sup>Solan.</sup>  
USM (A) Shrub 1.5 m. tall in  
MO forest. Corolla pale blue-violet.  
BIRM → K

US 5075. Clidemia heterophylla (Desr.) Gleason <sup>Melast.</sup>  
GIT seed (3) Shrub 1.5 m. tall. Ovary  
& pedicel magenta. Petals +  
filaments white. FR. dark  
blue. (Axillary fls) det Wurdack 1970

GIT 5076. Rhodospatha MUKUNTAKIA CROAT <sup>Arac.</sup>  
(1) Climbing epiphytic herb.  
Spathe creamy white. (PARATYPE!)

USM 5077. Eupatorium <sup>Comp.</sup>  
GIT (3) Herb 2 m on roadside.  
Fls. creamy white. det. E. Zardini  
1977.  
(Vell.) House

CUSCO 5078. Ipomoea phillomega <sup>Convolvulac.</sup>  
GIT (3) Vine in open thickets along  
F road. Calyx purple. Corolla  
deep pink. det. C. Niezgoda 1976.  
foto



GH 5079 Fern  
USM (2) Tern. fern in 2<sup>o</sup> growth.  
det Wurdack 1975

USM 5080. Clidemia dentata D. Don Melast.  
US (3) Shrub to 1m. in 2<sup>o</sup> secondary  
GH forest. Fls. white. Fks. blue black.

GH 5081. Angunia? Cucurb.  
F (2) Herb. vine in open thicket.  
Hypanthium deep orange. Corolla  
yellow.

USM 5082. Clidemia cordata Cogn. Melast.  
US (3) Shrub 1m. Ovary & calyx  
GH light yellow green. det Wurdack 1975

U. 5083. Ischnosiphon Mercur.  
GH (3) Vine at edge of forest, 4 m.  
long. Fls. pale brown. Bracts  
dull yellow.

GH 5084. Pariana sp. Gram.  
US (3) Herb in forest. Sterile.  
Cusco det Soderstrom 1975

USM 5085. Olyra sp. nov. Gram.  
US (2) Herb in forest. Lvs. dark green.  
Sp. helms creamy white.

US 5086 Leandra longicoma Cogn. Melstam  
 USM (3) Shrub 1 m. in cut. Bracts lt.  
 GH green. Hairs dark red. Fls. white  
 det Wurdack 1975

GH 5087 Tococa caquetana Sprague Melst.  
 (1) Shrub 1.5 m. Rachis <sup>to ovary</sup> red.  
 Petals + filament yellow.  
 det Wurdack 1975

♀ Feb 75 Dept. Madre Dios: Prov.  
 Mamm. Road from Shintuya to ~~Salvacion~~  
 Salvacion.  
 Alt. ~~2000~~ ca. 600 m.

Chaco 5088 Cleome spinosa Capper.  
 GH (3) Herb <sup>1 m.</sup> in wash along road.  
 F Petals white. Gynophore red.  
 Calyx green.

USM 5089 Guzalaguania Rub.  
 GH (2) Shrub 2 m. in forest margin.  
 Corolla tube deep pink. Limbs  
 pale pink.

U 5090 Calathea cf. nodosa Rusby Marant.  
 GH (2) Herb 2 m. tall on open  
 disturbed road bank. Bracts  
 red; Lvs. yellow green above

pale grey green beneath, petiole red orange.

5091. Miconia tomentosa (Rich.) Don Melast.

USM  
US  
GTT  
(3) seed Small tree in low forest margin,  
5 m. Unripe fruit red, ripe  
fruit purple black.  
det Wurdach 1975

5092. Peperomia Piperac.

GTT  
Semi-fleshy herb in dark forest. Spikes  
pale green. Frs - yellow-green.

Road ~~station~~ to Pilcopata. Alt. 650 m.

5093. Eucephalosphaera lasiantha Milobr. <sup>Atalaya</sup> ~~±~~ Acanth

US  
GTT  
pmpb.  
white  
(2) Herb 2.5 m. on forest margin  
along road. Bracts rose-pink.  
Conolla pale pink. Lip: lateral lobes  
white with red-purple margin,  
center lobe red-purple with 2 white  
spots near base. det. D. Worschman 1975.

5094. Ctenanthe?

~~Hylasanthus~~ Marantac.

U.  
HF  
GTT  
(4) Herb 3 m. tall on forest margin.  
Lvs dark green above, pale green  
beneath. Bracts light green. No fls.

Pilcopata: Villa Carmen. 9 Feb. 75

5095. ~~Psychotria~~? Faramea maynensis Spruce <sup>ex Rusby</sup> Rub.

USM  
GH  
F

Shrub 1.5 m. in thicket  
in fst. margin. Rachis <sup>blue</sup>, pedicel  
& ovary white, Corolla lt. blue.  
Rachis in fruit dark blue. FR.  
Still green. det D. Simpson 1976.

5096. Passiflora guazumaeifolia Presl <sup>Pessif</sup>

GH  
CUSCO  
F  
K

(4) Vine in roadside thicket  
Bracts pale green. Calyx  
abaxially pale green; calyx  
adaxially 4 petals creamy white.  
Outer corona creamy white  
with <sup>strong</sup> band of red-purple near  
base. Inner corona creamy  
white. Stamens spotted purple.  
Ovary cream. det Kew 1977.

CF. P. NITIDA H.B.K. <sup>DET.</sup> J.E. LAWESSON & L.B. HOLM-NIELSEN  
1988 <sup>Solih.</sup>

GH  
MO

5097. Lycium

(2) Scandent vine in thicket.  
Corolla pale violet. Calyx  
purple in fruit. FR. pale green.

5098. Endlicheria dysodanthe (R. & P.) Mez <sup>receptacle</sup> Laufer.

F  
CUSCO  
GH

(3) Tree 3-4 m. Pedicel + calyx  
red. FR. green. det. H. v. d. Werff 1986.

Quotsuia

5099.

Quotsuia?

Leath.

NY

(1)

Sapling 2 m. tall in 2° forest

5100. Cecropia tessmannii

Moroc.

US  
GH

(2)

tree at forest margin, 10 m. tall. Infl. green.

Quitsalzon, road from Pilcopata to Pillawata. 3700 ft. 10 Feb 75  
Shady forested quebrada.

5101. Begonia altaperuviana

Begon.

Cusco  
GH

(3)

Fleshy herb 1 m. Perianth + ovary bright red-orange.

GH

5102. Centropogon

Compos.

(1)

Herb to 1 m. Corolla pink.

(Poeppig) Benth. ex Walp.

Cusco  
SEL  
DBA  
GH

5103. Diastema maculatum det Viehler General

(4)

Herb on wet bank in shade  
Lvs. dull olive green above, purple beneath. Calyx brown to green. Corolla tube dull pink to purplish, dark purple, dotted within. Lvs. white or pale violet with white inner margin. yellow stripe within tube at lip.

GH  
SEL

Poepp.  
5104. Bestera cf. divaricata <sup>General-pale</sup>  
(2) Herb 0.5 m. Pedicel orange.  
Calyx ~~deep~~ -orange. Corolla yellow  
orange. det D. Wasshausen 76

GH

5105. Stenospermation anomifolium (Poepp.) <sup>Arac.</sup> Schott  
(1) Herb on steep wet bank.  
Spathe brown Spadix cream,  
det M. Madison 1977.

GH

5106. Floscopa <sup>Commelin.</sup>  
(1) Herb 0.5 m. Infl. pale yellow  
lvs green.

GH

5107. Cestrum <sup>Solan.</sup>  
(1) Shrub 2.5 m. along  
stream in clearing. Fls. yellow  
green.

GH

5108. Pilea <sup>Urt.</sup>  
(1) Herb 1 m. Infl. pale green.

GH  
CUSCO

5109. Justicia polygonoides H.B.K. <sup>Acanth.</sup>  
(13) Herb 1.0 m. along stream.  
Fls. creamy white. lip with  
double row of spots.  
det. Wasshausen 1975



GH 5110. Cayaponia Cucurb.  
CUSCO (4) High climbing herb. vine over-  
hanging stream. Calyx cream white.  
US. Conolla pale green. Fks. ~~the~~ dark green,  
shiny. (A) → K

F? 5111. Calathea Marant.  
GH (1) Herb 2 m. tall. Lvs. yellowish  
HK ← (A) green above, pale grey green  
beneath. Bracts dark green.  
Bracteoles pale yellow green,  
hyaline. Calyx hyaline greenish  
Conolla tube cream, lobes pale ~~cream~~  
golden yellow, red-brown toward  
tip.

F 5112. Chrysochlamys membranacea Pl. & Tr. guttifera  
CUSCO (3) Tree 8 m. tall. Fls. creamy  
GH yellow. det. C. Niezgodz 1982. Dillenia?

GH 5113. Aphelandra peruviana Wats. Acanthaceae  
(1) Herb 2 m. in deep shade. Bracts  
light green. Conolla base pink  
det. Wats. 1975.

GH 5114. Blechnum splenioides Sw. fern  
USC (4) Herb on steep wet roadbank.  
F det. K. U. Kramer 1975

Monotagma sp. nov.

5115. ~~Monotagma~~

Merent.

live low creeping herb on steep wet  
roadbank among mosses.  
Bracts yellowish green. Fls.  
white. det HK, 1978.

U  
USM  
HK  
GH  
F

3900 ft alt.

GH 5116. Calceolaria cf. engleriana Kränzl.  
F (2) Roadside herb in wet place.  
Corolla deep yellow. det. U. Molau  
1981.

5117. Cestrum Solms  
Seed Shrub 3 m. tall in sun  
(3) (A) along road. Corolla greenish yellow.  
FR. black.

5118 Monopyle macrocarpa Benth. Gesner.  
(1) Herb on wet roadbank. Calyx  
green. Corolla tube white, lobes  
violet.

5119. Calceolaria Arz. c.  
(2) Herb on wet roadbank.  
Cusco Spathe white. Spadix cream.



5120. Sobralia violacea Orchid.

U  
CUSCO (4) Orchid on high road bank in sun.  
Sepals + petals white. Lip white  
with <sup>large</sup> golden spot near tip.

GtH  
CUSCO 5121. Desmodium Legum.  
(2) Prostrate herb on road cut - Fls.  
pink.

USEY  
US 5122. Miconia thaegeus (Bonpl.) Cogn. Helast.  
(3) Small tree in open roadside  
hillsides. Fls. white.  
det Wunderlich 1975

Alt. 6700 ft.

= Conna jeegeriana Urb.

5123. Conna leucocarpa Bouché <sup>wet</sup> <sup>Connac.</sup>

U  
USM  
GtH  
F (4) Herb 2.5 m. tall on open  
hillside along road. Bracts  
green with brown margin. Rachis  
dark purplish brown. Ovary  
dark red. Calyx cream to pale  
purple. Corolla bright red-  
orange. Stamens + Stamen  
deep orange with reddish spots  
on adaxial surface.  
det P. J. M. Maas 1975.

Road Pucallpa to Pucallpa.  
Near Abra Acanacu. Alt. 11400 ft

- GH  
U  
USM  
(3) 5124. Siphonandra elliptica (R. & P.) Klotzsch  
Herb 1 m. tall on moist  
hillside. Corolla waxy, red, lobes  
cream. Ericac.

S. cf. VATKEANUS ZAHLBR. SARA EDWARDS 3/2006

- GH  
W  
K  
P  
(4) 5125. Siphocampylus veteranus E. Wimm. Campanul.  
Herb 2 m. tall on open roadside.  
Fls. ~~yellowish~~ greenish yellow.  
dark red on dorsal side.  
det. C. Niezgod

- Cusco  
GH  
P  
(3) 5126. Siphocampylus elfriedii E. Wimm. Campanul.  
Herb 1.5 m. on roadside.  
Calyx green. Corolla <sup>deep</sup> rose pink  
lobes green.  
det. C. Niezgod 1976

PERU: Depto. Puno. Prov. Chucuito.

Yunguyo. Lake Titicaca.

18 Feb 75 Alt. 3815 m.

5127. Lupinus mutabilis

ECON (2)  
COL  
seeds only: F  
Cult. herb 1 m. tall. Fls. deep  
blue-violet, banner purple at  
middle with yellow spot near base.  
"Tarchui"

5128. Oxalis tuberosa Molina

ECON  
COL  
Cult herb. Stems succulent  
pale green. Fls. yellow. Tubers  
white.

5129. Oxalis tuberosa Molina

ECON  
COL  
Cult herb. Stems succulent red.  
Tubers cream with pink coloration.

5130. Avena

ECON (2)  
COL  
"Avena" oats.  
Cult. grass.

5131. Hordeum

ECON (2)  
COL  
"cebada"  
Cult. grass.

5132. Chenopodium quinua

ECON (2)  
"Quinua"  
Cult. herb 1 m. In fl. green to reddish

5133. Calycera pulvinata Remy  
~~Calycera~~ det. L. Constance + M. Mathias  
1996.  
Succ. Rosette herb in sand on  
lake shore. Fls. white.

GH, LA

Bolivia: Dept. La Paz. Prov. Menco Kapac.  
Above Copacabana. 18 Feb 1975.

✓ 5134. Cantua

U (3) Shrub 4 m. tall on open  
K roadside. Calyx dark purple  
GL bronze. Corolla deep carmine.  
"cantuta"

GH 5135. Solenum

BIRM (2) Shrub 1 m. on roadside.  
Fls. purple.

Peru: Dept. Puno. Prov. Melgar.  
Abra de la Raya. 4300 m. alt.  
18 Feb 1975.

✓ 5136. Cajophora coronata Hook. et Arn.  
circisifolia Presl  
K (4) Usticating upright herb  
U among rocks. Fls. red-orange.  
GH F det Kew 1977.

Depto. Prov. Murillo  
Bolivia: La Paz. 121 Feb 1975.  
Valle de la Luna. Alt. 11000 ft.

5137. Dunalia

Spiny shrub 1 m. tall in dry,  
barren heavily eroded soil. Fls.  
deep blue-violet.  
det A. Hunziker 1976

GH  
MO  
BIRM

BOLIVIA: Depto. La Paz. Prov. Nor  
Yungas. Between La Cumbre and  
Unduavi. 22 Feb 75

5138. Salpicchroa glandulosa (Hook.) Miers ssp. glandulosa

(A) Weak shrub branching from rock  
(?) walls. Calyx green to purple-  
bronze. Corolla lacinia yellow in  
bud, becoming golden yellow,  
pendant. det. S. Keel 1983.

usc  
u  
F needs  
GH 4  
MO  
BIRM → K

(A) → NY

Below Unduavi. Alt. 10500 ft.

5139. Lamerouxia

(3) Slender virgate shrub on steep  
road banks 1 m. tall. Calyx tinged with  
deep wine red. Corolla scarlet.

F ✓  
u  
GH

Saracha punctata R. & P.

5140. Paecilochroma

(3) Erect shrub 3 m. FRs. black.

GH  
F  
BIRM → K  
MO-live

DET. HUNZIKER 1994

Bolivia: Dept. La Paz. Prov. Nor  
Yungas. Road Unduavi to Sacramento.  
Alt. 10,000 ft. 22 Feb 1975.

- U  
GH  
F
5141. Desfontainia spinosa R. + P.  
① Scandent shrub on steep hillside, 2 m.  
(3) Calyx brown. Corolla tube light  
red, lobes pale yellow.

Ⓐ → K

Centropogon

- GH  
F
- ✓ 5142. Centropogon brittonianus Zahlb.

(2) Herb 2 m. tall on road cut.

Ovary purple. Calyx lobes olive  
green. Corolla tube yellowish be-  
low, <sup>lobes</sup> carmine red above. Fls.  
yellow-green.

red PTBG

---

Alt. 9200 ft

5143. Spiranthes

frms

(1) Herb among ferns + frasses on  
wet road bank. Infl. greenish.

✓ 5144. Utricularia alpina Jacq.

U

(A) Herb on steep wet cliffs among  
(2) mosses. Upper sepal purple-  
brown, lower pale green. Spur  
cream. Corolla pale violet with

Ⓐ → K

pale yellow gibbous spot.

Alt. 7500 feet.

- GH  
US ✓ 5145. Feuquites mexicana (Kunth.) Trin. Gramin.  
(2) Creeping herb on cliff under water fall.  
det Joderstrom 1975
- GH  
P (A) (2) ✓ 5146. Hedyosmum racemosum (R. & P.) <sup>Schms-</sup> <sup>Leubach</sup>  
Treelet 5 m. on open hillside.  
Spikes greenish yellow. det. C. Mez <sup>Godt.</sup> <sup>1986.</sup>
- U  
GH (2) ✓ 5147. Peperomia  
Sun. herb. Stems + lvs. pale  
green. Spikes pale green.
- U  
US  
GH (3) ✓ 5148. Miconia sp. <sup>Melast.</sup>  
Treelet 5 m. on open hillside.  
Young growth + rachis rust.  
Buds cream.  
det Wunderck 1975.
- U  
US  
GH (4) ✓ 5149. Miconia cf. cordata Triana det Wunderck 1975.  
Tree 6 m. on steep open  
~~rock~~ hillside. Lvs. green above,  
rusty brown beneath. Petals pale  
yellow. ~~stamens~~ <sup>stamens pale</sup> yellow.

GH  
BIRM  
MO (4) Alt. 6200 ft. Solanum luteoalbum P.  
5150. Cyrtandra? ~~vel aff.~~ det. A. Child 1975  
(4) seed Scandent shrubs 2 m. tall on open hillsides. Fr. lt. orange.

GH  
USA  
US (3) 5151. Tibouchina orbignyana (Naud) Cogn. Melast.  
Shrubs 1.5 m. on open roadside. Petals + filaments very pale yellow. Anthers golden.

GH  
USA  
F (4) 5152. Rhizonotum herb on steep roadside. fern

GH  
USA  
F (3) 5153. Mandevilla Apocyn.  
Shrub 0.8 m. on rocky outcrop along road. Corolla white, yellow at throat.

GH  
NY  
F (3) 5154. Clusia  
Shrub 5 m. tall. Young infl. yellowish. Frs. pale green.

GH  
U  
US (3) 5155. Miconia ternatifolia Triana Melast.  
Shrub 3 m. Young frs. green. det Wunderlin 1976.



rs.

Alt. 6000 ft.

GH  
US  
USA

✓ 5156. Miconia cyanocarpa Naud. var. parvifolia Cogn. Urb.  
(3) Shrub 1.5 m. on ~~wooded~~ hillsides.  
Fls. white, det Wurdack 1975

5157. Desmodium

GH

(1)

Creeping suberect herb <sup>along road ditch.</sup>  
red. Corolla <sup>blue</sup> Violet.

✓ 5158. Miconia cordata Triana

Urb.

USA  
US  
GH

(3) Large shrub with spreading  
branches. Twigs rusty brown.  
Fls. pale yellow, det Wurdack 1975

5159.

Orchid.

Ames  
UK

(1) (1)

Epiphyte in wooded hillsides.  
Fls. deep yellow.

Alt. 5000 ft. Near Coroico.

Ames  
U

✓ 5160. Habenaria

(1) (2)

Herb along roadsides. <sup>Petals</sup> ~~Fls~~ creamy-  
white. Sepals + ovary lt. green.

(= Galactia speciosa (Dc.) Schum.)

✓ 5161. Collaea speciosa Dc.

(3)

U  
F  
GH

Roadside shrub 1.5 m. Corolla  
scarlet. Calyx lt. brown.  
det C. Niezgoda 1976.

Between Yoloso and El Choro.  
Alt. 3500 ft.

F USA1 GTT ✓ 5162. Mabea longifolia (Britton) Pax + K. Hoffmann Euphorb.  
(3) Shrub 2.5 m. Rachis light  
green. Buds red. det D. Simpson 1976

USA1 US GTT ✓ 5163. Miconia minutiflora (Bonpl.) DC. Uelast.  
(3) Shrubs to treelet 3-5 m.  
Fls. creamy white. Fragrance  
of hyacinth. det Wurdack 1975.

Alt. 3600 ft.

U USA1 GTT F ✓ 5164. Pogonopus tubulosus (DC.) Schum.  
(4) Scandent shrub 4-5 m.  
hanging from cliffs. Bracts  
scarlet. Corolla dark wine  
red. det D. Simpson 1976.

5165. Renealmia racemosa

U USA1 GTT MO F ✓ (5) Herb on steep bank in thicket.  
needs 2 2.5 m. tall. Infl. basal;  
Rachis + bracts olive green.  
FR. dark red, fleshy calyx +  
reunions orange.

Between Puerto León and Caranavi.

Alt. 2500 ft. Along Rio Coraico.

23 Feb 76.

Glt  
USA  
F 5166. Doryopteris  
spores (3) Fern on steep hillside along stream

U  
USA  
Glt 5167. Begonia  
(3) Semi-fleshy herb on steep hill-  
sides along stream. Lvs. dark green  
above, reddish below. Peduncle red.  
Fls. cream to pink.

Glt  
U  
USA  
F 5168. Cinchona calisaya Wedd. var. josephiana Wedd.  
(4) Shrubs 1.5 m. on dry rocky  
outcrop. Fls. cream, fragrant at  
evening. det. D. Simpson 1976.

U  
US  
Glt 5169. Miconia sessilifolia Naud. Melast.  
(3) ~~Shrub~~ 2-3 m. tall on dry  
rock banks. Lvs. dark green above,  
tawny beneath. Petals yellow,  
filaments red, anthers yellow.  
det Wurdack 1975

U  
USM  
ECON  
US  
GH  
F  
COL  
U  
S

✓ 5170. Erythroxylum citrifolium St-Hil.  
(live) Shrub to 3 m. tall on dry  
(10) rock outcrop. Trunk 3 cm. near  
base, <sup>gray</sup> Lvs. dull dark green to  
yellowish-green above; pale  
green beneath with distinct  
venulet, areolar regions indistinct,  
no lineae. M. druit lt. brown  
FRs. red & few. Lvs. papyraceous

5171. Rubiac.  
(1) Shrub 1 m. on dry hillside.  
Rachis & peduncle red. FRs. purple  
black.

~~Bolivia: Dept. La Paz. Prov. Larecaja?~~  
Road from Caranavi to Quenay.  
Beyond Alcoche. Alt. 4800 ft.  
23 Feb 75

need ♂  
GH  
U  
USM  
P  
BIK  
F

5172. Brunfelsia mire Monochino  
(11) (A) Shrub 0.8 to 1.5 m. tall on  
live steep forested hillside along  
(Cyto) quebrada, in partial shade. Lvs.  
dull, dark green above; lt. yellowish  
green beneath, rubbery. Calyx  
pale green, tubular-camparullate,  
not plicate. Corolla tube very pale

EIAI  
live ~~to Forest~~  
Woburn

violet; Limb pale violet beneath,  
lt. violet above with white spot at  
mouth.

✓ 5172. Pariana bicolor Tutin Bambusoid.  
(5) ~~1~~ <sup>1</sup> <sub>live</sub>  
u USRA  
US  
Grass on steep forested hillside  
along quebrada. Bracts pink.  
Spikes light green, stem yellow.  
det. T. Soderstrom

5174. Peperomia  
GH  
(1) <sub>live</sub> fleshy herb on steep hillside along que-  
brada. Stem reddish. Spikes yellow.

5175. Noissetia orchidiflora (Rudge) Griseb.  
GH  
WJW (2) <sub>live</sub> det. T. Plowman 1979  
Herb 0.5 m. on bank of stream  
in shade. Fls. orange.

5176. DiaSTEMA latiflorum Rusby Gesneriad.  
GH  
(1) <sub>live</sub> semi-fleshy herb on steep shady  
hillside along quebrada. Fls. pale  
violet. det. Wiehler 75 z Rutaceae

5177. Erythrochiton brasiliense Nees + Martius  
GH  
(3) <sub>live</sub> ~~Shrub~~ <sup>Shrub</sup> 1-1.5 m. Unbranched on  
forested hillside along quebrada.  
Calyx bright red. Corolla pale white.

BOLIVIA: Dept. La Paz. Prov. Nor-Yungas.  
Between Coroico + Ayapata. Alt. 6500 ft.

5178 Alzbenaria

U  
AMES

(2) Herb among grasses at edge  
of road bank. Bracts + rachis  
lt. green. Calyx + spur pale green.  
Petals + lip white.

---

Alt. 5800 feet. (1760 m).

ECON ✓

5179 Erythroxylum Coca

(1) Cult. shrub to 1 m. tall in  
weedy 2-acre field on east facing slope.

Soil  
seed  
A-~~HH~~ F  
S UC  
US UC  
K UC

Rows perpendicular to slope;  
Plants in various stages of  
picking.

---

Coripata. 1760 m. alt.

✓ 5180 Ctenanthe d. kummeriana Marantac.

GH

(1) Cult. herb in hotel garden.  
Lvs. green above with grey stripes  
parallel to 1st. nerves; purple  
beneath. Bracts greenish to  
brownish with dark red margins.  
Fls. creamy yellow

live = PTBG  
Lyon  
R. Montgomery

near Coripata on road to Puente Villa <sup>Alt. 5800 ft. (1760m)</sup>

✓ 5181. Erythroxylum Coca

ECON  
US  
P  
OL

(4)(5) Shrub to 1m. tall cultivated in hillside field. lvs. yellowish green above, pale green beneath, with paler areolae.

FRS. olive green, turning red at maturity.

5182. Ipomoea nil (L.) Roth.

GH  
F

(2) Roadside vine in thicket. Corolla deep magenta, white basally.  
det C. Niezgodal 1976.

---

BOLIVIA: Dept La Paz, Prov. Sud yungas.  
Road from Puente Villa to Undurvi.  
Alt. 6800 ft.

5183. Desmodium limense Hook.

GH  
USA  
F

(4) Herb on roadside. Stems, pedicel & calyx red. Corolla pale violet.  
det. C. Niezgodal 1982.

✓ 5184. Gloxinia gymnostoma Griseb. Gesner.

GH  
Sell  
DBN

(3) Herb on roadside to 1m.  
Corolla deep magenta pink  
det H. Wiehler 75

5185. Pastiflora subgen. Distephana, sect. Kermasina

GH  
K

(2) Vine in thicket along road. Calyx pale green. Corolla pale blue. Corona in 2 series, dark purple at base, banded blue + white apically.

5186. Ipomoea peckoltii Meissner  
Vine in thicket. Corolla cream  
GTH towards base, deep pink apically.

---

Alt. 8400 ft.

u  
AMES 5187. Orchid  
(A) (2) Herb on steep hillside. Fls.  
greenish yellow throughout.

✓ 5188.  
u (2) Herb 1 m. on steep hillside.  
Ovary + sepals dark red. Petals  
+ column <sup>greenish</sup> + yellow.

---

Alt. 8700 ft.

✓ 5189. Canna liliiflora  
u GTH (2) Herb 4 m. tall on steep  
wet hillside. Capsules lt.-brown.  
Seeds black.

Seeds: Kross, MAAS, PTBG

---

Alt. 9700 ft.

u  
AMES 5190. Orchid  
(2) Herb on rocks on steep road.  
bank. Fls. <sup>bright</sup> lemon yellow  
throughout.



BOLIVIA: Dept. La Paz. Prov. Nor Yungas.  
Alt. 11,100 feet. Between La Cumbre  
and Unduavi. 24 Feb 1975

needs 3

canarioides Urb. + Gilg

U  
USOZ  
GH F  
K (6)  
P  
- 5191. Cajophora burraeri Urb. + Gilg.  
Vine in thicket. Fls. red-orange.  
det. M. Paston 1984.

SARACHA PUNCTATA R. & P.

GH 5192. Poecilochroma DET. HUNZIKER 1994  
U (6) shrub 1.5 m. tall on open  
F roadside. Corolla pendant  
US needs 3 brownish purple with dull yellow  
MO veins, yellowish toward lobes.  
BIRM Berry black.  
⊕ → K

BOLIVIA: Dept. La Paz. Prov. Murillo.  
Alt. 14000 ft. Between La Paz + La Cumbre

✓  
U  
GH  
F  
5193. Cajophora horrida (Britton) Urb. + Gilg  
(3) Herb not climbing among  
rocks on barren hillsides. Fls.  
lt red-orange. Hairs urticating.  
det. M. Paston 1984.

BOLIVIA: Depto. La Paz. Prov.  
Murillo. Valle de la Luna.  
10,500 feet, 27 Feb 1975.

5194. Trichocereus bridgesii (Sam-Dyck) Britton + <sup>Rose</sup>

ECON

Branching columnar cactus  
to 1.5 m. tall. No flowers,  
n.v. "achuma" - mescaline  
San Pedro type.

~~U. Chi Field Mus.~~  
Weil  
~~Bennett~~

5195. Eulychnia sp.

<sup>(1)</sup>  
GH

Shrubs 2 m. tall. Fls.  
rose-pink. Hypanthium green.  
det. M. Flores 1977.

✓ 5196. Cuscuta ODORATA RUIZA PAVON

USM  
GH  
F

(3) Parasitic vine on Coupo-  
sitae. Fls. + FRs. cream.

ATK

DET. T. BEUZ 1986

5197. Trichocereus bridgesii (Sam-Dyck) Britton + <sup>Rose</sup>

ECON

Cult. shrub 1 m. tall in  
Cactario Municipal. Fls. creamy  
white. FR. green, flesh  
white, seeds black.

seedlings → <sup>Huntington Bot. Gard. Waimea</sup> ~~Weil~~, ~~Bennett~~, <sup>Uchi</sup>, Ratchiff  
Seeds: Del Tredici, Ratchiff, C. Schon SEL

3 MAR 1975.

BOLIVIA: Dept. La Paz. Alt. 3843 m,  
Prov. Ingavi. Ruins of Tiwanaku.

GH  
USM  
BIRM → K  
F  
MO

5198. Jaborosa sp. Flower.  
Rosette herb on archaeological  
site in open, disturbed sites.  
Fls. green to yellowish orange.  
④ → K

---

PERU: Depto. Puno. Prov. Chucuito.  
Zepita. 3815 m.

✓ 5199. Cheopodium quipo Willd.  
ECON (2) Cult. herb to 1 m. tall.  
Inf. fragrant.

5200. Cheopodium <sup>pallidicaule</sup> ~~albicaule~~  
ECON "Cañihua"  
Cult herb along roadside in  
field. Stems reddish. Lower leaves  
yellow or reddish.

---

PERU: Dept. Arequipa. Prov. Arequipa. Near  
Pety on road to Juliaca. Alt. ca. 4400 m.

GH  
BIRM → K

5201. Jaborosa Flower  
Rosette herb on <sup>bare</sup> open hillside  
along road. Fls. pale grey-blue.

Peru: Dept. Arequipa

Prov. Caraveli. Near Roca Chica. Sea level.

5202. Ablana

USM

→ has 2  
labels

Strawd plant on rocky dunes  
near sea. Fls. pale blue.  
Lvs. succulent.

---

## Coca leaves

5203. E. coca

ECON

1 pound leaves from "Yucay"  
(La Convención) bought at  
Andahuaylas, PERU. 10 Jan 75.  
Price: 50 soles/lb.

5204. E. coca

ECON

1 pound leaves from  
Kcosripata Valley bought  
at Pilcopata, Prov. Pucallambo,  
Cuzco. Price 30 soles/lb. 10 Feb 75.

5205. E. coca

ECON

7 pound lvs. bought in Cuzco  
market: from Quillabamba.  
1 Feb 1975. ~~1~~  
50 Soles/lb.

5206. E. coca.

ECON

1 pound leaves bought in  
Cuzco market: from Quillabamba.  
"Cuzco Verde" 15 Feb 75.  
40 soles/lb.  
1000 1 sol/bell.

5207. *E. coca*

1 lb. leaves bought in  
ECON street side market in La Paz.

Source: Coripata.

Price: 20 pesos / lb. 28 Feb 75.

5208. *E. coca*.

1 lb. leaves bought in  
ECON street side market in La Paz.

Source: Coripata.

Price: 24 pesos / lb. 28 Feb 75.

---

PERU: LIMA: LA Molina. Jardín Botánico. Cult.  
6 April 1975

5209. *Erythroxylum novogruatense*

BIT (3) Shrub 1.5 m. tall. Same  
ECON as 4624. Fls. creamy white.  
F Fruits still green.

5210. *Erythroxylum ulei*?

BIT (3) Shrub 1.5 m. cult. Sterile.  
ECON  
F

5211. Erythroxylum ulei O.E. Schulz

(1)

ECON

Shrub 1 m. tall cultivated at greenhouse, La Molina, Universidad Nacional Agraria, Lima, Peru.

Collected by Edgardo Machado, at Crisnejos, Dist. Uchiza, Dept. San Martín, Peru.

Tu amigo de siempre,  
que siempre te recordará,  
¡Muchas Felicidades!  
¡No te olvides!..

Pollinators? f Bronfeloia australis  
(LIMA):

skipper 1. Quinto cannae (Herrich Schöffer),  
1869. (Hesperidae).

fly 2. Ornidia obesa (Fabricius).  
(Syrphidae)



