dis

university note book

Brazil 1979

NAME

Amazonia #3

SUBJECT

No. 45-4852 (S-1812-N) END OPEN • 7 $\frac{3}{4}$ IN. x 5 IN. (19.7 cm x 12.7 cm) • 80 SHEETS • NARROW RULED
No. 45-4872 (S-1810-N) SIDE OPEN

VERNON McMILLAN, Inc., ELIZABETH N.J. 07208

AMAZONAS, BRAZIL

6892

les

AMAZONAS, BRAZIL

Cleofe E. Calderon, O. P. Monteiro
& J. Guedes

*Collected under the auspices of Instituto Nacional de Pesquisas
Amazonicas (INPA) and the Smithsonian Institution*

leaf or. comp.

Arthrostylidium

2867

2894 -

2910

(2970) flowers -

K-177 (B or A.?)

K. 190 +

K. 209 +

K-210 +

K. 222 (c a 190) flowers -

K 236

2867 — c23/4 - culms & rhizomes -

2894 — c23/3 c, brach. rh -

2910 — 23/6 c, br, rh -

(2970)
glaciers

K-177 (B or A?) — 23/1 c, br, ~~rh~~ -

K-190

K-209 — 23/1 c, br -

K-210 — 23/6 c, br, rh -

K-222 (H. 190) — 23/1 c, br -

K-236 23/1 c. / br -

BOTÂNICA

Nº do coletor: 893.

INPA MANAUS-AM

Sigla e endereço do Herbário

Nome

Endereço

Para mais informações sobre estudos de
projetos futuros

Porto Velho

Secretaria de Planejamento do governo
Secretaria de Obras - Eng.º Aldemir
Guerreiro Vilar.

Quintorrio do DNER em P. Velho A Sampaio
tel. 3815-
este endereço do
engenheiro

Brasil 1979

Amazonia # 3

les

(name loc. & tag as before 2841)
~~Wendell (Gibbs)~~ ^{book #2}

could be the same
Pterisophyte

Very delicate fern growing
on rock of a creek

Pterisophyte 2842

growing on rocks of creek

Pterisophyte 2843

growing on rock

Pterisophyte 2844

larger fern on rocks of
creek (at present almost
dry)

Oreganid.

2845

Territorial, near creek -
unicon

Bamboo

2846

Gnedeue -

Great ~~clumps~~ ^{clumps} with increas-
ingly thicker shoot as they
come up from rhizome
(not true is the same as
climbing one collected yester-
day (2828)). Thicker shoots
up to 3 cm, starting as
rulers of less than 1 cm.
Great and then arching
over repeat, about 8 m tall
beautiful rhizome (collected)
showing the increase of big
smooth culms, with
some white wax when
young. Look like A
both almost? A flowering
when young. Spring - no

flowers. Leaves very large
bunched at the top, ~~which~~ thick
also in upper or lower
branches, the leaves are
narrower.

(It seems it is the same
collected early as 2828
but then with a very
young, the beginning of a
new clump.)

FAA: Bud & leaves (2 v.)
rhizome & falling material
Photos: few in color (but
poor light)

x check the B & W photos: Roll #16 looks like
is a mixture of this Gnedeue and the
thin one collected early.

July 15 2847
Rolduc, ca. 3-⁵ km of San Jose, N.S.L.

~~Musaceae~~
Musaceae

Dropt. red, fruit green
(unicum)

~~Euphorbiaceae?~~ ~~Stauraceae~~ 2848
Bythneria?

climbing (trepedans) at edge
of forest. Flowers yellow green.

~~Melastomataceae~~ Solanaceae 2849

Small tree ca 5 m. with green
fruit & flowers. bark like

Lepurim. cordifol. 2850
Larrie?

Small tree, ca. 4 m. with
fruit only, at edge of
humid forest.

at edge of top of road from S.L. to A. M. (see) 80'
ca. 1/2 km. N. of village of N.S.L.
Lipocarpus? thin above (N.W. of village)
Palm 2851

Small, ca. 1.50, with red
orange fruit.

Theophrastaceae 2852

Lenje

Plant ca. 80 m. near
Lipocarpus, like a route plant -
with short, thick trunk-like
flower small, in a raceme

Convolvulaceae? *Impatiens*

2853

Small plant with white flowers
at edge of iparapa

Rubiaceae

2854

Rauia cf. Prancei
Tree, ca. 5m, with fruit
only

~~Rubiaceae~~ Boraginaceae 2855

Shrub, ca. 1.50 with small
flowers (biphas, (Se'colito))

Rubiaceae

2856

Beautiful inflorescence of large
white flowers on leaf stems
near iparapa

Rubiaceae

2857

Shrub, ca. 1.50 with fruit,
growing near edge of iparapa

Ranunculaceae

2858

Herb. ca. 1.20 - 1.50 with
large flowers, white with faint
hint of violet inside and one
violet line on each petal. Glabrous
leaves on the inflorescence.
PAA, photo

Ranunculaceae

2859

Robust plants, up to 1.60 m +?
habit of inflorescence. Dark wine
red, flowers yellow ± when
as an opened, then pale ivory
pink.
no PAA, Photo color

Stemuliaceae 2860

Shrub, ca 1.50 m with
fruits only.

2861

Rutaceae

Metrodorea florida Krause det. B. Z. G.
Tree, ca. 10 m, near iporã

?

2862

Shrub, ca. 1.50 m with large
yellow (orange hole)

Melastomataceae

2863

Miconia ericalyx Bogn.

Shrub or small tree ca. 2-4 m
with young fruits.

July 16

2864

Rondônia, ~~near~~ Mineirão

São Lourenço, 20 km NW of

Mutum Paraná; Igarapé São Lourenço
50 ^{south} ~~near~~ main villa.

Rutaceae

Herb, near iporã. bract
red, flowers yellow.

Lupinus. Papilio.

2865

Shrubby plant, common, ~~near~~
at edge of forest, flowers violet
blue.

Euphorbia

2866

growing at edge of forest
at heart.

Arthrostylidium
~~Arthrostylidium~~

2867

Very young population, main
plants I seed probably 1 or 2
years ago, only one or 2
nodes still with life &
few in flower. Lots of
new plants in 7 stages
were already climbing and
about 3 m high.
Culm leaf with erect
blade, at least when
young and in new shoots
like bamboo type.

We found a very old clump
with culms about 1 m or
so, baskets with small
hole in center. We saw
all nodes with leaf
no of bracts in a bract
complex with very thick
central one
spike with two big
raceme?

~~Potamogeton~~ leaves very delicate
small

Photo: lots

by wh-
leaves: FAA

bulky rhizomes 2
in flower

Piperaceae

2868

Shrub, ca 1.70 m in forest
mixed with bamboo

Marantaceae

2869

Flower yellow, anther

July 17

2870

Pondoma, the road NW of
Mutumpana, across N bank
of Rio Madure. Mineirão
the Morasse - ca. (17 + 27? km.
NW of J. Lourenço)

Mentha

Very abundant, robust Mentha
chrys in beautiful, tall,
dense in forest.

It looks like some M. J.
collected in Bolivia, in 72
near Gaudin, (see Gaudin
to ? going straight to the

west or also like some
I collected in 76 probably
in there, in Pinheiro's pegada
strong, but skin eaten
with very intensely. One
bush 1.20 m short (118)

with thick in all -
Thick branches, starting for
few and after + 50 photo-
ly per node they in itself
rebranch. They do not
form a very clear, clear
"shield"

Nodes of stem with
band of hairs, retorse
white, silky & woolly -
leaf sheath velvety white
pubescent with retorse
bristles very distinct.

Plants not very tall
up to 8 m? + heavily
over top.

But complement very
interesting, stating that
and address. Like the
way of bark of the

big, large leaf couple-
t with large, broad
to cordate leaf stalks -

Plot: S-W - 20-25

FAA (2) - 1st, 2nd, 3rd
Bulky: 2 Rhizomes, 3 cal
garnishes -

(note near 'iporangi', on road
back to São Lourenço)
Pteridophyte 2871

Small, delicate fern
near 'iporangi'

Pteridophyte 2872

Strong, large plant, up to
1.66 m. - on road

July 18 2873
Rondônia, Road Mutum-Paraná to
Município São Lourenço, Km E of Santa
of Rio Madeira (at edge & near 'iporangi'
Bambusa (Guadua) cobria!

Rhizome very long! monopodial?
with some roots separate
by pieces of rhizome from up
to 1.38, 1.74, 1.83 m!
very little thickened at
nodes. very superficial
just with a layer of
soil & dry leaves -

Very unusual structure, forming
self separated from each
other, not forming clumps
some culms + close ones
30 cm but mostly by
far apart, from 1.74 m

to 1.83 m.
culms very strong and 4 solid
all the way from base to
tip and ultimately branched
Internodes smooth nodes
with sharp little ridge
and 3 sharp but short
hook-like spines.

The sp. above said (+
1 m) start keeping
main branch which
has short internodes, see
shorter than culm with
3 leaf complement on
each or some spines (and)
leaf complement of + small
lanceolate rather narrow
blade. Leaves from main
culm on 1 or 2 small branches
lateral to the main. These

leaf complement layers and
blade also layer, with the
inflection on the strobil-like
but leaf deciduous on
main culm, and no
new growth seen.

The developing main branch
we found culm leaves
still attached. Very pretty
flowers or to with short
erect blade ending (or forming
only by) a thin awn.

Blots B x W x color 400 Fht.
of rhizome and few
of plant (dark ending)
bulky material: 2 large
rhizome, pieces of culm
and broken complement.

FRA: leaves only -
growing on low tree forest
but dense, like cernalis
type. In some are mixed
with a Menziesia sp. (2874)
or tall campine

Mentzelia

2874

(same loc. as (Guares))

Beautiful Mentzelias forming
very dense large clumps.
in low dense forest mixed
with Saururus, also mixed
with Men. a very rare Guares.
About 8 in tall & less than
1 cm in diam. - very
thin, fragile culms, very
smooth surface, with
small, single nodal
region; no upper ridge but
has girdle or thick ring
of hairs.

Leaves leafy caducous
with glaucous above & caducous
Very few new culms seen
Many branches per node
and very thin, delicate
branches, leafy compact
median - small, blades
narrow, glaucous & little
opercles -

Arizona typical, ± dense
polygynous -

PHA leaves & buds (2)

Bulky: *trigono*, *alba*

& *brachycomplanata*

Photo: B & W. & Ek. 400

Roddilla sp (teste, loose)
 July R. Nepes, Rio Curicuriari, Km 115 -
 Anh. rohet pedis, perto e campine det. vire
 Lara firme
 Phase - R. Nepes

20. Roddilla sp (teste, loose)
 On Sero do lua, rio Urubui,
 between Cachoeira Tracema
 e Natal.
 Epi Phase a June 6, 1968
 fe R. Nepes

Roraima: Rio Maricocira,
 vicinity of Maico airstrip 2876
 Indian trail from
 A. Surucucui to Maico

7. Roddilla, teste loose)
 Rio Urubui, Mandus-larasa-
 Arui Km 115 - growing in 2877
 mores on rock face
 Phase, J. R. Nepes Aug - 75

at edge of moss, 1 p.
 "igapo" "
 in mudst

MM

Roddillo p (tenderloose)
R. Negro Rio Curicuriari, Am
zohel pedrô, perto e campine de t.
firme
Phone - Rans

Roddillo p (tenderloose)
Serra do Guá, rio Urubui,
between Cachoeira Tracema
e Natal.
Prance & June 6, 1962
Plants

Roraima: Rio Maricocura,
vicinity of Maico airstrip,
Indian trail from
Surucucui to Maico

Roddillo, (tenderloose)
Rio Urubui, Mandau-laraca-
rué Km 115 - growing in
mosses on rock face
Prance, J. Rans Aug. 75

2875

July 30th

On Rio Urubiti, between Manaus-
Iracaraí and before bifurcation
(about 1/2 way from road), near Rio
de Iguazu.

Orquidaceae

Epiphyte, on trees at edge of river
forest on low bank. Flowers
color like (unripe)

Anonaceae

2876

Tree, ca. 5 m with fruit in
fruit ~~at edge~~ river, very prolific in
dots.

Lauraceae

2877

In flower, tree ca. 4 m. growing
at edge of river, periodically inundated
"igapo"

MM

Pteridophyte

2878

Epiphyte on trees at edge of river

(Boraginaceae?)

2879

Shrub, near edge of river, white
flowers

Vinca

2880

Shrub small tree ca. 3 m. - with
flowers -

Meliaceae

2881

Tree Shrub ca. 2 m. - ivory color
flowers, with perfume.

Piperaceae

2882

Epiphyte, on post at edge of
river.

Ranunculaceae

2883

Small plants with pale lilac flowers,
growing in two dense forest
near river.

Leguminosae.

2884

Tree about 6 m., cauliflora
flowers bright red with some
petals like when young, turning
red as the rest when mature?
some with fruit?

Myristicaceae

2885

~~Sp. tree~~ ^{Tournefortia} ~~ca. 3 m. in flower~~
ca. 3 m. in flower

~~Melastomataceae~~ ^{Flacourtiaceae} 2886

Casearia sp.

Shrub. ca. 1.5-2 m. with
very young flower buds

~~Melastomataceae~~ ^{Scrophulariaceae} 2887

tree ca. 5 m., flowers very
white

^{Legum.} ~~Mimosa~~ ^{minosoides} 2888

Tree, ca. 6 m. flowers white
no here so no

^{Apocynaceae} 2889

Tree ca. 6 m. flowers
white with perfume, at
edge of river

^{Legum.} ~~Mimosa~~ ^{minosoides} 2890

Tree 3 m. in flower

Tree ca. 7 m. flowers cream
white

^{Cyperaceae} 2891

Growing between rock ~~at~~
edge of river, some 10
m. from

Leguminosae. Andropin. 2892

Tree, ca. 6m with spike
like inflorescence

Sapindaceae 2893

Tree ca. 7m with white
flowers. (fruits 3 winged)

Aug. 1st. 2894

Am, Rio Urubici, between Manay
- Caracaras. Road and ferrie to
Tua. ~~near~~ near Serra da Lua
Artibeus litidactylus.

Beautiful, delightful to
be in in front
from near road to Tuma
Down river is also more abundant
seen the dominant plant under the
canopy on both sides of river and

on the gentle slopes up to the
top of plateau where it's scarce
or disappeared. Plants mostly small
looking like a young population,
from ca. 50cm to 2m + but
here & there some taller and
in some spots a smaller shrub
with vine like branches 3-6m high
and culms thicker ^{about 1/2 in} ~~about 1/2 in~~
or little more, but less than 1m.
Otherwise stem thread like and
internodes, culm leaf & look like
the whole plant sharp & sparse like
Selenia, culm or leaf tip ^{sharp}
a ~~sharp~~ sticking to clothes or skin -
culm leaf all sparse ("litchi" also)
sheath with a thick, cork like
collar - pubescent on the back
near the base lower edge of sheath with
a crown of stiff, curly hairs, white
and thick in groups looking like
a ring of triangle in a line
sheath all the overlapping edge of the
sheath with long, appressed hairs
Oval setae long & copper color.
Culm leaf blade erect, long
about 2/3 the length of sheath

sessile, small, narrower than
the top of sheath. Very common
snaking a falling very soon.
Branch complement of rosette.
Snobs very thin, coming from
the sides of ~~the~~ central petiole
The base of main branch thick but
then not very thick (like *Bohne*).
A leaf complement a glade in
itself small, glades narrow lanceolate
Sclerite, fern like. ~~poly~~ *poly*
Branches (2nd) rebranch on the distal
part with 2 leaf complement each,
or 10.

Aug. 2nd.

Mar Bon - Rio P. Maribú, between
Hannou - ^{Caracari} ~~Maribú~~ road and
Lima to Lúa.

going on with a real life
of lives, on the island back-
going on real work by notes.

2896

at edge of rocky cliff side -

Acanthoche

2897

Small & delicate at edge of river,
high river bank, rocky cliff -
Flowers white with rose spots;
very pale lilac. PAA. L. & flowers
Photos: after Roddick, color

Panama

2898

Trailing Panama, with inflorescence
shoot. (leaves with flowers) 2
m

Panama

2899

Another 1. taller, as stem. (2m)

Cyperaceae

2898
2900

On rocky bank, about 60cm
tall, with wide leaves

Cyperaceae

2901

Thin leaves, inf. raceme-
like

Pteridophyte

2902

Common on rocky face of
cliff along river, leaves
short, transparent, dark green

Pteridophyte

2903

Small fern. on rocks and
road along river.

Rubiaceae

2904

Small tree, about 6m,
flowers white. near edge
of river.

Telephinella

2905

Common on rocky ~~face~~ of
cliff along river - mixed
with *Ruellia*, ferns etc.

Orantheae

2906

Epiphyte ^{rare on} on cliff slope
river, Flower dark pink

Acantheae

2907

Small short caudex
Flower pink-lilac

Gynandromorphia

2908

Small plants growing on rock
at edge of river -
looked ~~to~~ from the other by
collected some today this one
no more than 70 cm ~~apex~~
less - not

Ruellia nana

2909

US, K, MO, NY, LE, P, WIS

Abundant, growing on rocky
face of cliff at edge of
river, between moss, ferns
Telephinella. Abundantly flowering
Plant very small, some
just 3 cm or less, some
trailing - the ~~largest~~ biggest

? Bamboo

2910

Arthrostylidium sp! (Det. 9/10/78)

growing at edge of river.

very common here & there

in air-told dump. ^{this is where} ~~from~~ ^{the} road to ~~the~~ ^{this area} (about 1/2 mi. by

motor road). Climbing bamboo

from discrete clump, (not

big) ~~just~~ and not erect

but sending out long

climbing over sept.

culm smooth, not apert

culm leaves persistent all

over the plant with blade

almost reduced to a very

small, erect joint or thorn

Sheath smooth, not hairy.

No new shoot seen.

but ~~just~~ about 2 m. or

no shoot starting, on

lower part 1 branch, then

3 branches, central branch

(not much), in some

places 5 branches.

~~Leaf~~ Leaf complement

large, many leaves

Stems long, smooth, base
with well marked petiole
and few or small oval
nodes.

Internodes of culm
short.

Rhizome with short
neck, (reple type).

Nodes ~~apert~~
culm with small hole
thick wall, in nodes
1/2, upper parts and
upper part solid.

Flts: some black white &
cold.

FRA: 2 leaves, 2 buds.

Gully in: rhizome, culm
black complement.

Aug. 3

2911

Bambusa?

(B. capitata complex. (int. 79))

Other? , hard to say
what it is - looks a bit
flame like the other
but in detail all are
it.

Small clump growing at
edge of river (which is
periodically inundate) not
growing open, inside
pouch the same for the
other bambusa (2910) -
climbing bambusa, from
base curved and very
up over the trees, very
thick smooth long petioles
Smooth smooth, blade
long reflexed, narrow
pointed, in some places
when very dry erect,
or then deciduous.
Long, silky oval retic.
Internodes smooth
not very long, thick walls

and small lumen when
mature a dry - jagged
solid but breaks with
fibre (look like small hole)
of the leaf, strong -
One node with upper
ridge marked. Branch
completing. mostly 1
branch in round place
that branch gives one
or two on the side.
Branch complement high position
between ridges.
Leaf complement, large of
several leaves, blade
long, & narrow, short
petioles a long silky oval
retic -
New shoot pointed, 2 -

Photo: B & W - color

FPA: leaf, piece of culm &
nodes (2 v.)

rhizome, culm sections, small
complement.

found lot about 2000
down the river, along
growing at edge of river
Plant not very tall ca. 6 ft
(*Andromeda*?)

Aug. 4

282912

Bar, Rio Urubá, ca. 3000
ft from Manaus - ~~the~~ Caraco
~~the~~ river road. A
gentianaceae

herbaceous, near edge of river,
white 5-merous flowers.

3 *Andropogonaceae* 2913

thin, ^{vine} (tapering), silvery green
in flower? near edge of river

Pteridophyte

2914

epiphyte on tree near edge
of river.

US, WIS

Agnes Smithia 2915

growing at edge of river,
(small type of plant,
size up to 70 cm)

F.A.A.: leaves

Onagraceae 2916

Epiphyte, flowers green white

Lentibulariaceae 2917
Utricularia

Saprophyte, no leaves, flowers
iridescent. (1 specimen with 2 photos.)

Peperomia ^{minorsii} ~~minorsii~~ 2918

Tree up to 10 m, flowers
white, common along river

Viola ~~hybrid~~ *hybrid* 2919
Viola elongata (Bth.) Wats.

Small tree, ca 6 m. narrow
leaves

Peperomia 2920

Ornithoglossum?

Tree, ca 12 m. Flowers pink
white.

Apocynaceae

2921

Small tree, about 8m with
orange yellow fruits, at
edge of river

Mimosa

2922

Virola calophylla Warb.

Shrub tree at edge of forest
about 6m. (wide) leaves

Elaeagnaceae

2923

Bigs on tree at edge of river
very young flower buds, few
open ~~white~~ waxy flowers (very
fragrant)

Mimosa

2924

Virola elongata (Bth) Warb.

Small tree at edge of river

Leguminosae

2925

Eperua

Tree ca. 12-15m at edge
of river. Flowers white.

Aug 5

2926

Am, Rio Nacari, between Maracá
& Caracará Road and Iracema
Water Falls. (about 2 1/2 h by foot?)

(Tatara?) n. sp. - (flowering)

One clump at edge of river
with some shoots. Flowering
and also several new shoots
beginning to appear. When
very young leaves in places on
the lower half conspicuously covered
by appressed brown short

hairs. When shoots old
they most of them fall
calcareous strong and flexible
not erect but curved on the
ground and ending over
trees. When young culm fills
in center with pith, wall
is thick. When old the
culm is hollow in center.
Blade of culm leaf long
and reflexed, late deciduous
but in new shoot very thin

more time a few are erect,
and then later reflexed - long
and petiole, silky and several times
older.

Mostly from above 1/3 from
ground start branching, one
branch per node! Internodes
rather short and most all
of them branched. Some
shoots give only branch
in complement of 1, many
at the end of shoot
give two small branches along
with leaf complement.
Flowers: head of pseudopikelets
apparently similar on nodes of
a shoot, head of pseudopikelets
bracts for more than 2 small
in color. Spike with more
hairs only on the edges of lower
or to. (The other band from Trans-
america look up all over by the
hairs. a great complement on the
complex.

FRA: flower, leaf & buds (3v)
and some pieces of culm with
buds. (no photo here, only 2 small
arrows)

Malpigiaceae

2927

Climber over tree at edge of river
with fruit only.

Sapindaceae

2928

Tree, ca. 7 m along river.
in fruit only.

Leguminosae Mimosa-like 2929

Tree about 7-10 m. along
river, common

US, K, WIS

Lycium-like sp.

2930

Abundant on bank of river
not ~~sure~~ sure if fig tree, looks
intermediate.

FAA: whole in flower.

Legum. berberis-like

2931

Swartzia?

Tree about 12 m. high
with flowers, yellow and
with perfume.

Mimosaceae

2932

Viola elongata ~~at edge of~~
(BFL) was.

Tree about 5 m.

Dioscoreaceae 2933

climbing over the edge
of river.

Loganiaceae 2934
~~Erythraea~~ Stychnus

li Woody cips over tree at
edge of river

Laplaceae 2935

Tree along river about 6-7
m

Cruciferae 2936

Tree along river, ca. 10m,
flowers white

Anonaceae 2937

Tree about 8m along
river, big flowers pale yellow

Cruciferae 2938

Tree ca. 10-12m with very small
flowers & red fruits.

Guttiferae

2939

Tree about 6m with young
big buds.

Aug. 6.

2940

Am. Rio Mucui. ~~between the~~
~~road & the road~~ Road is
about 1/2 km beyond yesterday.
(11.5 km from camp)

Moraceae

(Cecropia)

Tree at edge of river
with small pink flowers.

Locustine & Tracene and nearby
ipomoea.

Asporangaceae

2941

Small tree at edge of river
white, perfumed flowers.
very delicate, good perfume.

Orquidaceae

2942

Small epiphyte with yellow
flowers

Orquidaceae

2943

Epiphyte, long leaves hanging
from branches of tree. Flowers
yellow with brown spots.

Chrysanthemaceae ^{Si}
Licania -

2944

Small tree ca 8 m at edge
of vate. Small ivory flowers

Lepurim -
Dioecious?

2945

Liana of flowers like

Lepurim. Mimosaceae.

2946

Lupa

Tree ca. 6 m flowers white

Euphorbiaceae
Persea?

2947

Shrub ca. 1.5 m. Flowers
ivory white

²⁵ Anacardiaceae

2948

Creeping over trees near corral.

Burseraceae

2949

Small tree about 3-4 m. Small
ivory flowers

~~Utricularia~~ 2950

Nymphaeaceae
Cabomba

floating on water near water
fall, abundant, yellow
flowers.

2951

Xyridaceae

2951

Small plant on rocks by the
water fall.

Podostemaceae

2952

Renetic, by the water fall, leaves
attached to rocks, floating in
below water.

Scott Mori

Elaeocarpaceae

53

Ternstroemiaceae (Theaceae)

, at

Myrtaceae

Lecythidaceae

2954

the
~~2954~~

2955

epiphyte on tree,

BAHIA, BRAZIL

Mun. de Mucugé, Serra do Sincorá, 29 km S of Andaraí on road Andaraí-Mucugé. Elev. 1050 m. Common in plateau, near top of mountain. Forming dense, small clumps in sandy soil between rocks. Flowers light violet in color, stamens and stigmas bright yellow.

9 May 1976

Cleofé E. Calderón, Talmón S. Santos, and Lyselson B. de Oliveira

2415

Collected under the auspices of the Smithsonian Institution, National Geographic Society, and Centro de Pesquisas do Cacau (CEPLAC)

~~Heliconiaceae~~ 2950
Nymphaeaceae
Cabomba
Floating on water near water
fall, abundant, yellow
flowers.

2951

Xyridaceae 2951
Small plant on rocks by the
water fall.

Podostemaceae 2952
Aquatic, by the water fall, leaves
attached to rocks, floating ~~in~~
below water.

Melastomataceae 2953
Miconia pubipetala
Small tree, about 4m, at
edge of water.

Eriocaulaceae 2954
Tonina cf. fluvialis Aubl.
Aquatic, on rocks by the
water fall, (~~not identified~~)

Loranthaceae 2955
Epiphyte on tree.

Orquidaceae

2956

Epiphyte, beautiful green
flowers with brown spots.

Convolvulaceae

2957

Growing on wet rocks by the
water fall (very small plant).

Bomeliaceae

2958

Growing on rocks at edge of
water fall

Convolvulaceae

2959

Growing on soil over stones
at edge of water fall.

Myrsinaceae

2960

Shrublet of 3 m high at
edge of water fall.

Legumin. Cordilinoideae
Swartzia.

2961

Tree, about 7 m. high. flowers
white with perfume
n.v. "sassafrano"

Melastomaceae

2962

Arctostaphylos

At edge of 'ifanaga' by creek.
The roots pale. Flowers white
with stems like.

Orquidaceae

2963

Epiphyte, small, with yellow
flowers.

Bombacaceae

2964

Small tree at edge of

Conocarpus

2965

tree at edge of water. Flowers
pale yellow, perfumed.

Dec. 7.

2966

Fls. Rio Urubia, between Serra to Lusa
& eastwards to Tracema water fall

Abolito (not far from camp - right
side). Black stone wall with
water running over

Arthrostylidium sp.
seedlings.

Very abundant, forming
bush on sand on rocky
slope. Adult plants flowering
on the spots. (water holes) Most of
them rather young, with cotyledons still
attached. Few with 2 shoots from

2968

Small tree at edge of water
with very young flower buds.

Loranthaceae

2967

Epiphyte, on tree over water
Flower like pink.

Araucaceae

2969

On rocky, moist slope by
the river - (Munimam)

Arthrostylidium

2970

At one spot of the forest at
edge of river with 2-3 clumps
of mature plants, some
with in flower, but we
had to find fresh in flower.
But many, many seedlings
on the ground. Bit rocky, white
between rocks on a beautiful
rock wall with water dripping
along it.

Plant mature climbing &
hanging from trees, probably
not more than 6-7 m
tall. Mature culms ~~are~~
~~are~~ less than 1 cm in diam.
Some shoot already by
a foot. Spikelets visible but hard to
see any complete & young.

FRA: flowers. no photos

It looks the same we collected
early up stream in the first
camp - and almost everywhere

Leguminosae

2971

Small tree with beautiful pink flowers on the stem.

Guttiferaceae

2972

Larripa

Tree ca. 6 m. at edge of river. Flowers with white petals & many stamens. Petals fall very ~~rapidly~~ early.

Melastomataceae

2973

Miconia rugosa
about 6 dm.

Tree with big leaves and erect spikes of pale pink flowers with violet stamens.

Banana

2974

Growing on high river bank. Small leaves type - (2 or 3) "terre firme" forest

Melastomataceae

2975

Miconia marginata

Shrub ca. 1 m. on forest at edge of river, "terre firme forest"

Cyperaceae

(3)

2976

Growing in 1st forest, "terre firme" along river. Dominant in forest is a sp. of *Arthrostylidium*. Forming big clumps.

Arthrostylidium

Aug 8

2977

Rio Urubiti. Set near fence to
Rio x Tracema Water Fall. iparape
tributary with water fall.

Pteridophyte

~~Aboret~~ Big fern forest
type, about 2 m high in
rain forest at edge of ipa-
rape tributary of river.

Pteridophyte Selaginella 2978

Selaginella

Common in wet forest along
stream tributary of main
river. (tipo Selaginella)

Metastomataceae

2979

~~Plants~~ Plants with red flowers
in rain forest along streams

Pteridophyte

2980

In wet, dark place of
forest along iparape, tributary
of main river

Pilea goellii US

2981

In wet forest along iparape
tributary of main river, slope
with rocks and sandy
soil. Growing with ferns and
other plants in flower.

Pteridophyte

2982

Epiphyte, growing on wet bark
of a tree trunk. In
forest along iparape.

Anacard

2983

growing at edge of iparape
mouth of main river, wet
dark place - (unclear)

US, K, WIS

Rastillea esenbeckii

2984

(Humb.) C. & S.

Abundant on rocks at edge
of river near iparape of note forest
growing between rivers.

FAA - flower & leaves

3:1 - " " "

~~Panama~~

~~2985~~

~~collected by K. ? on 17 Jan~~
~~lost~~

Zingiberaceae

2986

(same loc. & date & obs. than
Anacard ^{Malay} collected in
Jociparano, (see no 2788)

Growing in terra firme ^{forest} near
rio Jociparano, Flowers red -

Bambusa

2985

collected by J. & J. near

Amazon River (?) ^{in V. 1970} near Manaus
about 1 hour (?) above Manaus

Medium size bamboo, ca. 3-
4 m, ^{young} near river, to
culm with thick walls
about 0.8 - 0.9 cm diameters
culm leaf ~~rather persistent~~
persistent late in place.
culm leaf blade very small
All plants flowering -
bb. & al. - Aug. 18, 79

Um fazendeiro tem uma
vaca e a mãe do fazen-
deiro é também o pai
da vaca.

Augt. 30.

KC 79-66

Bandeira (Guaianá)

Arr. Rio Negro

Igarapé do Jaraguá entre Manaus e
Arquipélago das Anavilhanas

Young near the edge of river in
small stems, terete leafy
on refert. ca. 5-6 m, leaves
surface appears with thick
wax, only small leaves
inside. Wood region with
white bands above & below
brown ridge. Very young
bark. The lower part of
culm stem & curved but
short spines developed at nodes
in cylindrical pattern. Above
middle when branches start
developing the secondary growth
shows a unilateral. Leaves
only one side of main axis
produces several. on the
other side only 1 spine.
No new shoots seen, but

few culms thick found on the
ground: blade persistent - short
triangular.

Blade of young leaves
medium small lanceolate -

K 79-89

Sept. 3,

Am. Rio Negro, right bank,
2 hours below Tapachula.

"*Setaria Tenellana*,

on granitic outcrops, stone

(*Olyra*) *longifolia*.

growing in the water at edge
of river, up to 1.40 m. - First
of flowers, similar to
the one collected in the
Museum.

FAA: br. & inflorescence

K 79-127. same loc. as before
and next day Sept. 4

Panicum sp.

growing in the beach with
Brickellia and *Cyperaceae*

Sept. 4, 1979

K 79-135

Bambusa

Hum. Rio Negro, ipapó Davao
near Santa Isabel (Tapurucuan)

Growing in ipapó forest
slope ipapó. Small climber
completely immersed. Culm
leaving on repetition, up
to 15 cm $\pm$. Heavy walls
with small bumps in
center of internode. Furrow
smooth, but furrow
rather short. Culm diam
up to 1.3 cm $\pm$ culm sheath
rather persistent or late
detaching. Blade ^{very} reduced, only
a small Δ , erect.

Few spines on one side
of fresh complement.
Internode $\pm$ thick $\approx$ 4-6 $\pm$ cm.
Flowering. Top pseudospike-
lets, but showing quite
differences in length, some short
& others much longer.
Not many 2e pseudospikelets

found. Moreover some
new shoot found
(looks like the $\frac{1}{2}$ of that
seems colder and
Mamans

Bulky material: internode & fresh
complement.

FAA: br & pseudophl.

We saw this bambusa also growing
& in flower late, near
in the Rio Camaburi, above
Santa Isabel.

79-136-

Sept 5

Am, Rio Negro, mouth of
rio Cauburi, above Santa
Isabel (Tapurucuru).
(ca 110 km above Tap.) on map.

Pennisetum polystachyon

Most common on terra
firme forest, near edge
of rio Negro. Mostly all
plants yellowish, growing
in association with esp.
of *Pennisetum* (most in fl.)

FAA: bl. & white

79-140

Sept 5

Rio Negro, mouth of rio
Cauburi, above Santa Isabel
(Tapurucuru)

Johnanthus panicoides

On terra firme forest
near edge of rio Negro.

79-159

Cratogeomys sp.

these same loc. ↑
(beach were with spent the
night).

Laheine to Butu
no ipirape' Piraiatuara
" Piraiatuara
aplente to Curicunari

79-177

7 Sept.

Bambusa (Juncus) (?)

Rio Negro, near mouth of Rio
Curicunari.

Growing near the edge of rice,
on steep forest. Forming
rather small clumps. Culms
arching over repeatedly up to
20 dm or more, no spine
internodes smooth, with
thick walls, white in int.
Internodes rather short.
Culm leaf thick, smooth
with short, narrow
A blade.

FRA leaf.

bulky: stem like a grass?

78-189

US, K, IND, NY, P, WIS, LE

Sept. 8, 78

Redville (see section?)

Am (Rio Negro). *Ipomoea Piracantha*
re, tributary of the lower
Cunimuray; Lactecia to
Butte? to the

Abundant on rocks by the
water fall - growing between
mosses & small *Utricularia*
In some places it is small
& short as usual, but
in higher rocks is somewhat
and trailing over rocks for
about 20 ft or more -
Very velvety, thin leaves.
Plants all in flower. Probably
the trailing plant on + often
noted place? beautiful!
Forming carpet or large spots
seen also in some granite
walls along the *Ipomoea*.
Also growing on rocks around the
works.
FAB: only 1 not bud.

79-190

Sept. 8-

Am. *Ipomoea* *Piracantha*

Arthrotylis

Growing in low forest on
fuzzy soil near edge of
river.

Climbing scandent, abundant
in the forest over trees &
shrubs. Culm very velvety
thin, probably 6-8 m +
Very asperous. Culm leaf
with erect blade.
Foliage velvety, blade
narrow, short lanceolate
looks like the one collected
in the stream -

FAB: Lr.

Bulky material: fine of culm.
garment?

79-191

Panama

Sept. 8

Am. border via Curicunary

Abundant in low forest along
river, on sandy soil. (if 70%)
near the edge, sandy
plant near but not one
patch with flowers.

FAS: 20. a. inflores.

K. 79-209

Sept. 9

On Rio Maria, ca. 30 km
above mouth - near village
of Macoseta.

Rhynchospora

Clustering sedges growing in
forest on high bank along
river, with sandy soil of
sediment. Thin, less than 1 cm
but strong & flexible on
veg. & trees $\pm$ 6 m. Forging
to large, dense clumps about
1 m. high. Internodes &
culm ~~the~~ leaves very smooth
Internodes with thick nodes &
small hollow center.

Culm leaves very smooth
triangular with no external
demarcation of blade - or
for inside see text. Blade
ending in a long throat
like tip.

Leaves rather large - (near later
this sp. in flower!)
Sheath rather persistent

~~Thellus~~

Many ~~stems~~ main axis of
branch clumped in $\pm$
stages of bud development
(fresh & old) -

In many cases the main
axis of the b.c. remains as
a thick bud, and developing
beautiful vine-like branches.
(at first ~~little~~ without leaves
of if ~~Arundin.~~)

buds (4-2 vials)
F&A: leaves & part of culm
bulky: part & internodes.
no photo

K78-210

Sept. 9

Am, Rio Mowé, ca. 30 km
above mouth, near ~~station~~
Lachelira, above village of
Macobete

Arundinylidium.

Another beautiful vine-like
buds, $\pm$ sp. of the same
genus collected early in the
day and not far from
the other place. Abundant
on high river banks in very
wet, forest slope river
"sp" type, ~~probably~~

^{geo}(or not) collected by the high tide
of river on the rainy season
stages and tall *Arundinyl.*
+ 12 m or more climbing &
hanging. Very "lisa" type
very lax perianth all over, stem
& culm sheath, it's like
"tiririco" (Telúe)

Culm leaves rather persistent
(the same for the other sp.)

on late specimens when buds
develop. Culm leaf appears
and long triangular, with
no indication of sheath.
Those (is this the most common
one in the genus, Ar?) are
oval ribbed; some with
leaf overlapping, especially near
base. Culm with ^{little} ~~small~~ ^{near base}
like expansion. Culm leaf
with a collared like structure
(the) near base,
culm up to 1 cm or little less
strong & flexible; with little
white or white or more in
some parts. It's seem to
produce more branches x b.o.
than the other sp.
Culm cuts filled with pith in
some parts of plant.
We saw this bamboo in very
places along the river, mostly
on the side opposite the village
(right bank of river).
F.A. 1st piece of culm & bud,
bulky anatomical: parabolic 2

pieces of culm
and photo

79-211

Sept. 9.

Am. Rio Marie, ca. 35 km
above mouth of river.
(ifnase' near cascade (or rapids
settle)

(Olyce) longifolia type

Large clumps growing in the
water of rapids, immerse
part over 1 mile $\pm$ 2.5
m. aerial, arising a little

broader from several nodes
below top and flowering
profusely from third node
up. (several series per node -
node -

top leaves type of *O. longifolia*
at Tynmouth.

FR: lvs. a inflores

79-222

Sept. 10

Am. Rio Marie, ca. 40 km
above mouth of river
(some km above cascade
near village) on right side
of river (opposite to village site)

Arctostaphylos sp?
(in flower)

Same sp. as the first Arct.
collected in this river

Beautiful, hanging from
trees at the edge of river
but dense in firm
ground (possibly isolated)

This is 'spade' type of plant
All plants in one spot

flowering but not seen in
other places. Infl. $\pm$ Arctost.

type of apical rosette? but
apical 1-flower, with very

long, thread like squilla
extension, like *Arctostaphylos*

The anther $\pm$ like *Arctostaphylos*
the, broadly compressed.

large, with 2? glumes -
shorts at base, very short
(The whole infl. whorl look
like a true spike, and
extension of anther an
and uppermost spike
very well developed.
Collected a lot of material
and for herbarium &
lots for seeds.
(in vol. 209)

FRA: 2 vols: br. & inflores.
long. 1 r. infl.
3:1 - 1 v. infl.
Bulky in: culm pieces only
Photo: B & W & color
Echachone 64 -

79-236

Sept 11, 78

Arthrocladum

Am. Rio Tea, 40 km above mouth
"Bacuri" village -

Common at edge of river, in
"Bacuri" forest, some
plants growing in the water.
Small plants, probably a
rather young population? often
flowering when few years ago?
bluish green, rising up to
3-4 m $\pm$ blades rather
large -
low type of river, in
some places changing
to camping slaps
but then no bamboo seen?

79-243

Sept. 12

Bambusa

(

some loc. of 722222

(Bambusa in flower, collected in the morning)

(Base clump growing at edge of river in ipso forest, base of plant partially immersed. Plant up to 6m⁵).

Culm smooth, no ribs, and no spines. In some nodes (near) one of the lateral buds pointed looking like a thorn.

Both complement typically bambusa style: Main axis strongly dominant with thickened, as an oval bulb, repeated and divergent from culm in a wide angle, some time up to 30° or 50°. Secondary axis coming at level of the base of 1° one, and also growing & spreading out

in sharp angle and very
from parent are
culm with very thick walls
and small leaves.
Leaves over trees. Flowers
prolonged, somewhat
and of leaf compound.
No new shoots found

no photo

FRS: to a some point.
no buds?
Bulky: culm pieces & branch
with leaves.

K. 78-252

12 Sept.
(afternoon)

Olyra? sp.

Area

Am, Rio Negro, Ilha
Tamarequari, Varzea
near Santa Isabel to Rio
Negro (Taparequara)

Growing in beautiful tall
forest, dense, primitive? - apparently
periodically inundated.
Tall oblique culms,
abundant, growing as an
open area common here.
Strong rhizome with
and alternating divergent
to one side & the other
(as the one I collected from
O. Stanley).

Simple of several fls. per
terminal node and
some (1 or 2?) below
long and ending in spike
in flower. 7 specimens

K. 78-251

Sept. 12

Same as before

~~Bambusa nana~~

with very long, more than
10 ft., 1 ft. long.

Arisea seems glabrous (very)
leaving 8 or 10 small nodes
covering the whole axis below

K. 78-251

Sept. 12

Same loc.

Bambusa nana?

(long fls., fig. to complement)

Beautiful climbing bamboo,
up to probably over 12 or 15
m., leaning and climbing
over trees. Culms straight
with thick walls, with
rather short internodes.
Leaf with 1 and
distinctive fls. -
leaf internodes smooth
Typical bamboo branch
complement. no spine
seen, Big (numerous)
leaf complement with
long & wide leaf fls.
Abundant in tall forest,
transition? for ipso in
large island.

No photo.

FRA: 15- only
bulky material: color pieces
& parrauchos -

May 15

2492

Reserva Duke, near Manaus,
Pariana

growing scattered in rain forest
~~few~~ in flower; the inflorescence
produced in a uperated
shoot.

Pariana

2493

growing in ^{humid} ~~dark~~ places of
~~rain~~ rain forest. Not abundant.
Fl and few in flower.

(This two ~~times~~ collected with
Osmarino)

May 22.

2494

Azores, Reserva Duke, near
Manaus.

Piptis symphodica.

growing ^{abundantly} ~~near~~ the road not too
far from the stream.

collected with Jose' Ramos.

2495

Lehmannia?

growing in rain forest, near

the road to the stream.
(collected with Joe's Ranges)

- 2492 - *Poniana* (w. *Chamaea*)
2493 *Poniana* (w. " "
2494 *Pirene* *symplocos* w. *for* *Ram*
2495 *Ternstroemia* ?

bulky material

2519 1I, 5G, -	2I, 4G, -
"2706" several pieces, 1A	several pieces, 3R
2733 1I, 3G, -	1I, 3G, -
2754 2I, 4G, 1R	2I, 3G, -
2755 2I, 6G, 1R	2I, 5G, 1R
2756 1I, 3G, 1R	1I, 2G, 1R
2771 1I, 2G, -	1I, 2G, -
2780, 3G, -	1I, 3G, -
2782 1I, 3G, -	1I, 3G, -
2783 3I, 4G, 1R	3I, 5G, 1R
2784 no bulky	
2813 1I, 3G, -	2I, 3G, -
2818 2I, 4G, -	2I, 4G, -
2829 1I, 4G, 1R	1I, 3G, 1R
2833 2I, 3G, 4S, 1R	3I, 3G, 2S, 1R
2846 1I, 4G, 1R,	1I, 3G, 2R
2867 2I, -, 1R	2I, -, 1R
2870 1I, 4G, 1R	2I, 4G, 1R
2873 2I, 2G, 1R	2I, 2G, 1R
2874 2I, 3G, 1R	2I, 2G, 1R
2894 2I, 4G, 1R	2I, 4G, 1R
2910 2I, 5G, 1R	2I, 5G, 2R ching
2911 2I, 5G, 2R	2I, 4G, 1R
2926 -, 3G, -	-, 4G, -
2966 & 2970 no bulky	
2985 HE - 1R	2I - 1R
pg.	pg.

K79-66 IN, 3I, ~~MS 2G~~, ~~MS 2I~~, 2G, —

- 89 IN

127 IN

135 IN, 2I, 2G, — MS 2I, 2G, —

136

140

159

177, 3G,

189

? 190

191

209 2I, 5G, 1R 2I, 5G, 1R

211

222 1I, — — 1I, — —

236 3I, 2G, 1R 3I, 2G, 1R

243 4I, 7G, — MS 3I, 7G, —

251 3I, 4G, ~~MS~~ — 2I, 4G, ~~MS~~ —

252

210 2I, 5G, — 3I, 5G, 1R

8

2807 IN (4)

MS (7)

2834 IN (4)

MS (11)

2808 IN (4)

MS (4)

2835 IN (6)

MS (6)

2809 IN (5)

MS (5)

2836 IN (7)

MS (5)

2810 IN (6)

MS (6)

2837 IN (5)

MS (5)

2811 IN (5)

MS (5)

2838 IN (5)

MS (6)

2812 IN (4)

MS (6)

2839 IN (5)

MS (10)

2813 IN (4) ^{det.}

MS (6)

2840 IN (5)

MS (5)

2814 IN (4)

MS (4)

2841 IN (4)

MS (6)

2815 IN (2)

MS (2)

2842 IN (2)

MS (2)

2816 IN (2)

MS (2)

2843 IN (2)

MS (2)

2817 IN (3)

MS (4)

2844 IN (3)

MS (3)

2818 IN (4) ^{det.}

MS (5)

2845 IN (1)

MS —

2819 IN (3)

MS (3)

2846 IN (5) ^{det.}

MS (8)

2820 IN (4)

MS (6)

2847 IN (1)

MS —

2821 IN (3)

MS (3)

2848 IN (4)

MS (5)

2822 IN (5)

MS (5)

2849 IN (7)

MS (6)

2823 IN (3)

MS (3)

2850 IN (3)

MS (3)

2824 IN (3)

MS (4)

2851 IN (2)

MS (2)

2825 IN (4)

MS (4)

2852 IN (1)

MS (1)

2826 IN (9)

MS (4)

2853 IN (2)

MS (3)

2827 IN (2)

MS (1)

2854 IN (4)

MS (4)

2828 IN (3)

MS (4)

2855 IN (2)

MS (2)

2829 IN (4) ^{det.}

MS (5+)

2856 IN (1)

MS ? ^{not lost?}

2830 IN (3)

MS (2)

2857 IN (4)

MS (12)

2831 IN (4)

MS (10)

2858 IN (4)

MS (5)

2832 IN (4)

MS (3)

2859 IN (1)

MS (1)

2833 IN (5) ^{det.}

MS (7+)

2860 IN (1)

MS (1)

2861 IN ⑥	MS ⑥	2888 IN ②	MS ②	2915 IN ①	MS ②	2942 IN ①	MS ①
2862 IN ①	MS ①	2889 IN ③	MS ⑤	2916 IN ①	MS —	2943 IN ①	MS ①
2863 IN ②	MS ②	2890 IN ④	MS ⑥	2917 IN ①	MS —	2944 IN ④	MS ⑤
2864 IN ⑤	MS ⑤	2891 IN ③	MS ④	2918 IN ④	MS ⑤	2945 IN ④	MS ⑤
2865 IN ⑤	MS ⑤	2892 IN ③	MS ④	2919 IN ④	MS ⑤	2946 IN ④	MS ⑥
2866 IN ⑤ ^{int.}	MS ⑤	2893 IN ③	MS ⑤	2920 IN ⑤	MS ⑤	2947 IN ④	MS ⑥
2867 IN ⑤ ^{int.}	MS ⑧	2894 IN ⑤ ^{int.}	MS ⑤	2921 IN ⑤	MS ⑤	2948 IN ③	MS ③
2868 IN ③	MS ⑤	2895 IN ⑥	MS ⑥	2922 IN ⑥	MS ⑥	2949 IN ⑤	MS ⑤
2869 IN ①	MS —	2896 IN ①	MS ①	2923 IN ③	MS ④	2950 IN ⑤	MS ⑥
2870 IN ⑤	MS ⑥ ⁺	2897 IN ④	MS ⑪	2924 IN ⑤	MS ⑤	2951 IN ④	MS ④
2871 IN ②	MS ③	2898 IN ①	MS —	2925 IN ③	MS ③	2952 IN ⑤	MS ⑦
2872 IN ⑦	MS ⑦	2899 IN ①	MS ①	2926 IN ⑤ ^{int.}	MS ⑧ ⁺	2953 IN ⑤	MS ⑤
2873 IN ⑤ ^{int.}	MS ⑦ ⁺	2900 IN ②	MS ③	2927 IN ⑤	MS ⑥	2954 IN ⑤	MS ⑥
2874 IN ⑤ ^{int.}	MS ⑦ ⁺	2901 IN ③	MS ④	2928 IN ④	MS ⑤	2955 IN ①	MS ②
2875 IN ①	MS —	2902 IN ④	MS ④	2929 IN ⑤	MS ⑥	2956 IN ①	MS —
2876 IN ③	MS ④	2903 IN ③	MS ③	2930 IN ④	MS ④	2957 IN ⑤	MS ⑤
2877 IN ④	MS ⑤	2904 IN ⑥	MS ⑤	2931 IN ④	MS ⑤	2958 IN ②	MS ①
2878 IN ③	MS ③	2905 IN ⑤	MS ⑤	2932 IN ④	MS ④	2959 IN ⑤	MS ⑤
2879 IN ①	MS ①	2906 IN ④	MS ④	2933 IN ⑤	MS ⑥	2960 IN ②	MS ②
2880 IN ②	MS ②	2907 IN ②	MS ③	2934 IN ③	MS ④	2961 IN ④	MS ⑤
2881 IN ①	MS ①	2908 IN ②	MS ③	2935 IN ⑤	MS ⑤	2962 IN ④	MS ④
2882 IN ③	MS ⑤	2909 IN ⑥	MS ⑧ ⁺	2936 IN ④	MS ⑥	2963 IN ①	MS ①
2883 IN ③	MS ⑦	2910 IN ⑤ ^{int.}	MS ⑧ ⁺	2937 IN ⑤	MS ⑥	2964 IN ④	MS ⑤
2884 IN ②	MS ③	2911 IN ⑤ ^{int.}	MS ⑥-7 ⁺	2938 IN ④	MS ⑥	2965 IN ⑤	MS ⑤
2885 IN ①	MS ②	2912 IN ①	MS ①	2939 IN ④	MS ⑥	2966 IN ⑤ ^{int.}	MS ⑥ ⁺
2886 IN ④	MS ⑤	2913 IN ①	MS ②	2940 IN ⑤	MS ⑤	2967 IN ③	MS ②
2887 IN ③	MS ③	2914 IN ②	MS ②	2941 IN ④	MS ⑤	2968 IN ⑤	MS ⑤

felapinellos, entire material left for study
for Keise

2969 IN ①	MS -	K79 177 IN ④ ^{int. B}	MS ⑤ ⁺
2970 IN ④ ⁵	MS ⑤-6 ⁺	"-189 IN ⑤ ^{int.}	MS ⑨ ⁺
2971 IN ④	MS ⑤	"-190 IN ④ ^{int. B}	MS ⑤ ⁺
2972 IN ④	MS ⑥	"-191 IN ③	MS ⑤ ⁺
2973 IN ⑤	MS ⑥	"-209 IN ⑤ ^{ext. B}	MS ⑥ ⁺
2974 IN ①	MS ①	"-211 IN ⑤ ^{int. B}	MS ⑦ ⁺
2975 IN ③	MS ⑤	"-222 IN ⑤ ^{ext. B}	MS ⑧ ⁺
2976 IN ③	MS ③	"-236 IN ⑤ ^{ext. B}	MS ⑧ ⁺
2977 IN ④	MS ⑤	"-243 IN ⑤ ^{ext. B}	MS ⑥ ⁺
2978 IN ⑥	MS ⑤	"-251 IN ⑤ ^{int. B}	MS ⑥ ⁺
2979 IN ①	MS ①	"-252 IN ⑤ ^{ext.}	MS ⑥ ⁺
2980 IN ④	MS ③		
2981 IN ③	MS ②	(total plants collected with	
2982 IN ③	MS ②	KK was ①89)	
2983 IN ①	MS -		
2984 IN ⑥	MS ⑤		
2985 IN ⑤ ^{int. B}	MS ⑥ ⁺		
2986 IN ②	MS ②		

K79-66 IN ③ ^B	MS ④
"-89 IN ⑤ ^{int.}	MS ⑤
"-127 IN ④	MS ⑤-6 ⁺
"-135 IN ⑤ ^{ext. B}	MS ⑥ ⁺
"-136 IN ⑤ ^{int.}	MS ⑧ ⁺
"-140 IN ② ^{int. B}	MS -
"-159 IN ④	MS ⑤

2591 IN ②	MS ②	2618 IN ③	MS ④
2592 IN ④	MS ⑤	2619 IN ④	MS ⑤
2593 IN ①	MS ②	2620 IN ④	MS ⑤
2594 IN ③	MS ④	2621 IN ③	MS ②
2595 IN ④	MS ⑤	2622 IN ①	MS ①
2596 IN ⑤	MS ⑥	2623 IN ①	MS ①
2597 IN ③	MS ④	2624 IN ⑤	MS ⑥
2598 IN ⑤	MS ⑥	2625 IN ③	MS ⑤
2599 IN ①	MS -	2626 IN ①	MS ②
2600 IN ②	MS ②	2627 IN ①	MS -
2601 IN ④	MS ⑤	2628 IN ②	MS ②
2602 IN ④	MS ⑤	2629 IN ②	MS ②
2603 IN ⑤	MS ⑥	2630 IN ②	MS ②
2604 IN ④	MS ④	2631 IN ③	MS ⑤
2605 IN ②	MS ②	2632 IN ②	MS ③
2606 IN ①	MS -	2633 IN ③	MS ③
2607 IN ①	MS ②	2634 IN ④ ⁴	MS ③ ⁶
2608 IN ⑤	MS ⑥	2635 IN ⑤	MS ⑤
2609 IN ⑤	MS ⑤	2636 IN ③	MS ④
2610 IN ⑤	MS ⑥	2637 IN ③	MS ③
2611 IN ④	MS ⑤	2638 IN ③	MS ③
2612 IN ③	MS ⑤	2639 IN ④	MS ⑦
2613 IN ④	MS ⑤	2640 IN ①	MS ①
2614 IN ①	MS ②	2641 IN ④	MS ⑤
2615 IN ①	MS ①	2642 IN ④	MS ⑤
2616 IN ③	MS ⑤	2643 IN ①	MS ①
2617 IN ③	MS ②	2644 IN ④	MS ⑤

2645 IN ①	US —	2672 IN ③	US ④
2646 IN ⑤	US ⑥	2673 IN ②	US ③
2647 IN ④	US ⑤	2674 IN ①	US —
2648 IN 4 ⁺	US ④ ⁺	2675 IN ④	US ③
2649 IN ②	US ②	2676 IN ②	US ②
2650 IN ①	US ①	2677 IN ④	US ④
2651 IN ③	US ②	2678 IN ③	US ③
2652 IN ②	US ②	2679 IN ③	US ⑤
2653 IN ②	US ①	2680 IN ③	US ④
2654 IN ③	US ⑤	2681 IN ④	US ④
2655 IN ③	US ③	2682 IN ④	US ⑤
2656 IN ③	US ②	2683 IN ②	US ②
2657 IN ④ ¹	US ④ ²	2684 IN ④	US ⑤
2658 IN ④	US ③	2685 IN ④	US ⑤
2659 IN ①	US ①	2686 IN ②	US ③
2660 IN ①	US —	2687 IN ④	US ④
2661 IN ②	US ③	2688 IN ③	US ④
2662 IN ③	US ③	2689 IN ⑤	US ⑤
2663 IN ①	US ①	2690 IN missing	US ?
2664 IN ①	US —	2691 IN ⑤	US ⑤
2665 IN ①	US ①	2692 IN ④	US ⑤
2666 IN ①	US ①	2693 IN ⑤	US ⑥
2667 IN ③	US ③	2694 IN ③	US ③
2668 IN ③	US ③	2695 IN ③	US ③
2669 IN ①	US —	2696 IN ⑤	US ⑥
2670 IN ⑤	US ④	2697 IN ③	US ⑤
2671 IN ①	US ③	2698 IN ④	US ⑥

2699 IN ④	US ⑥	2726 IN ③	US ③
2700 IN ③	US ④	2727 IN ⑤	US ⑥
2701 IN ③	US ④	2728 IN ④	US ⑤
2702 IN ③	US ③	2729 IN ⑤	US ⑥
2703 IN ⑤	US ⑥	2730 IN ③	US ④
2704 IN ③	US ⑤	2731 IN ⑤	US ⑤
2705 IN ①	US ②	2732 IN ③	US ④
2706 IN ③	US ④ ⁺	2733 IN ④	US ④
2707 IN ③	US ④	2734 IN ④	US ⑥
2708 IN ⑤	US ⑤	2735 IN ⑤	US ⑦
2709 IN ③	US ③	2736 IN ④	US ⑤
2710 IN ③	US ③	2737 IN ③	US ⑦
2711 IN ③	US ③	2738 IN ③	US ⑤
2712 IN ⑤	US ⑤	2739 IN ④	US ⑤
2713 IN ⑥	US ⑥	2740 IN ②	US ③
2714 IN ③	US ⑤	2741 IN ②	US ②
2715 IN ④	US ⑤	2742 IN ⑤	US ⑥
2716 IN ④ ⁵⁺	US ⑥	2743 IN ④	US ⑤
2717 IN ④	US ⑥	2744 IN ②	US ②
2718 IN ③	US ③	2745 IN ③	US ③
2719 IN ③	US ⑤	2746 IN ④	US ⑥
2720 IN ④	US ④	2747 IN ③	US ③
2721 IN ⑤	US ⑥	2748 IN ⑤	US ⑥
2722 IN ③	US ⑦	2749 IN ②	US ② ^{Fdm. sweep.}
2723 IN ④	US ⑥	2750 IN ①	US ①
2724 IN ④ ²	US ④ ²	2751 IN ①	US —
2725 IN ③	US ④	2752 IN ⑤	US ⑤

2753 IN ①	MS ②	2780 IN ⑤ ^{includes}	MS ⑦ ⁸
2754 IN ④	MS ⑦ ¹	2781 IN ③	MS ③
2755 IN ⑤ ^{includes}	MS ⑥ ⁵	2782 IN ⑤ ^{includes}	MS ② ⁷
2756 IN ⑤ ^{includes}	MS 6 ¹⁰ +	2783 IN ⑤ ^{includes}	MS ⑦ ¹
2757 IN ⑤	MS ⑥	2784 IN ③	MS ⑤ ¹
2758 IN ④	MS ⑤	2785 IN ⑤	MS ⑤
2759 IN ③	MS ③	2786 IN ④	MS ⑤
2760 IN ⑤	MS ⑤	2787 IN ⑤	MS ⑨
2761 IN ④	MS ④	2788 IN ②	MS ③
2762 IN ③	MS ③	2789 IN ⑥	MS ⑧
2763 IN ③	MS ⑤	2790 IN ②	MS ④
2764 IN ③	MS ④	2791 IN ③	MS ⑥
2765 IN ⑤	MS ⑥	2792 IN ④	MS ⑧
2766 IN ③	MS ③	2793 IN ⑤	MS ④
2767 IN ②	MS ②	2794 IN ③	MS ④
2768 IN ③	MS ④	2795 IN ⑤	MS ⑤
2769 IN ③	MS ④	2796 IN ①	MS ①
2770 IN ③	MS ③	2797 IN ③	MS ④
2771 IN ⑤ ^{includes}	MS ⑦ ⁸	2798 IN ①	MS -
2772 IN ①	MS -	2799 IN ⑤	MS ⑤
2773 IN ⑦	MS ⑨	2800 IN ⑧	MS ⑥
2774 IN ①	MS ②	2801 IN ⑤	MS ⑤
2775 IN ④	MS ④	2802 IN ⑤	MS ⑤
2776 IN ①	MS -	2803 IN ④	MS ⑤
2777 IN ②	MS ③	2804 IN ⑤	MS ⑤ ¹
2778 IN ⑤	MS ⑤	2805 IN ②	MS ①
2779 IN ①	MS ①	2806 IN ③	MS ⑤

2507. INPA 1 MS	2537 IN ③	MS ③
2508 - IN ② ^{MS ②}	2538 IN ③	MS ④
2509 INPA 3 MS 4	2539 IN	missing MS ⑧?
2510 IN-2, MS 2	2540 IN ④	MS ④
2511 IN 2, MS 3	2541 IN ④	MS ④
2512 IN 3 MS 3	2542 IN ④	MS ④
2513 IN ① MS ①	2543 IN ①	MS ②
2514 IN ③ MS ④	2544 IN ④	MS ④
2515 IN ④ MS ⑤	2545 IN ①	MS ②
2516 IN ① MS ②	2546 IN ③	MS ③
2517. Pariond min	2547 IN ②	MS ③
2518 IN ③ MS ③ ^{INPA}	2548 IN ⑤	MS ⑥
2519 IN ⑤ ^{includes} , MS, 5 ¹ +	2549 IN ④	MS ④
2520 IN 3 ¹ per MS 5 ¹ +	2550 IN ④	MS ⑤
2521 IN ① MS ②	2551 IN ④	MS ⑤
2522 IN ④ MS ⑤	2552 IN ④	MS ⑤
2523 IN ③ MS ④	2553 IN ④	MS ⑤
2524 IN ③, MS ③	2554 IN ④	MS ⑤
2525 IN ③ MS ③	2555 IN ④	MS ⑤
2526 IN ④ MS ④	2556 IN ⑤	MS ⑦
2527 IN ④ MS ④	2557 IN ⑤	MS ⑦
2528 IN ④ MS ⑤	2558 IN ⑤	MS ⑥ ¹
2529 IN ④ MS ⑥	2559 IN ①	MS ②
2530 IN ④ MS ③	2560 IN ④	MS ⑤
2531 IN ③ MS ④	2561 IN ④	MS ⑤
2532 IN ③ MS ③	2562 IN ③	MS ⑦
2533 IN ⑤ MS ⑥	2563 IN ⑤	MS ⑥
2534 IN ① MS ①		
2535 IN ③ MS ③		
2536 IN ① MS ①		

3

2564 IN (4) MS (5)
 2565 IN (4) MS (5)
 2566 IN (4) MS (6)
 2567 IN (4) MS (5)
 2568 IN (4) MS (5)
 2569 IN (3) MS (5)
 2570 IN (6) MS (8)
 2571 IN (3) MS (4)
 2572 IN (4) MS (4)
 2573 IN (4) MS (5)
 2574 IN (3) MS (4)
 2575 IN (5) MS (6)
 2576 IN (5) MS (4)
 2577 IN (4) MS (4)
 2578 IN (4) MS (5)
 2579 IN (6) MS (7)
 2580 IN (5) MS (5)
 2581 IN (4) MS (5)
 2582 IN (6) MS (7)
 2583 IN (5) MS (6)
 2584 IN (4) MS (5)
 2585 IN MS (5)
 2586 IN (4) MS (5)
 2587 IN MS (5)
 2588 IN MS (5)
 2589 IN MS (5)
 2590 IN (5) MS (6)

1

2492 IN (3) MS (2)
 2493 IN (3) MS (2)
 2494 IN (7) MS (8)
 2495 IN (3) MS (3)
 1^a nige Anagone
 2496 IN (5) MS (7)
 2497 IN (2) MS (8)
 2498 IN (2) MS (2)
 2499 IN (4) MS (4)
 2500 IN (1) MS —
 2501 IN (4) MS (4)
 2502 IN (1) MS (1)
 2503 IN (2) MS (2)
 2504 IN (1) MS (1)
 2505 IN (3) MS (3)
 2506 IN (3) MS (4)

James Zarucchi
 Harvard Botanical Museum

Apocynaceae

esp. Couma, Parahancornia,
Hancornia, Lacmellea,
Pacouria, + Ambelania s.l.

for the -

important.

Neocouma
ternstroemiaceae
 (fls)

Sent to Velva Rull a duplicate

J. F. Ramos
 O. P. Monteiro
 Jose Guedes
 Aurea
 Silene
 Lucia de Alencar?
 Sebastian "Saba"

Losme Damiao
 Dionisio
 Luis
 Le Lima
 Sen Raimundo (copied)

3

2564 IN (4) MS (5)
 2565 IN (4) MS (5)
 2566 IN (4) MS (6)
 2567 IN (4) MS (5)
 2568 IN (4) MS (5)
 2569 IN (3) MS (5)
 2570 IN (6) MS (8)
 2571 IN (3) MS (4)
 2572 IN (4) MS (4)
 2573 IN (4) MS (5)
 2574 IN (3) MS (4)
 2575 IN (5) MS (6)
 2576 IN (5) MS (4)
 2577 IN (4) MS (4)

1

2492 IN (3) MS (2)
 2493 IN (3) MS (2)
 2494 IN (7) MS (8)
 2495 IN (3) MS (3)
 1st nige. *Angonia*
 2496 IN (5) MS (7)
 2497 IN (2) MS (2)
 2498 IN (2) MS (2)
 2499 IN (4) MS (4)
 2500 IN (1) MS —
 2501 IN (4) MS (4)
 2502 IN (1) MS (1)
 2503 IN (2) MS (2)

James Zarucchi
 Harvard Botanical Museum

Apocynaceae

esp. *Couma*, *Parahancornia*,
Hancornia, *Lacmellea*,
Pacouria, + *Ambelania* s.l.

for the -

important.

Neocouma
ternstroemiaceae
 (fls.)

sent to Velva Rudd a duplicate
 or a piece, at least of the 3
 specimens she saw or identified
 one from R N & 2 from Mumbi
 one is the genus name after Mle.

R. N. 79-208. *Machaerium* (read a
 piece).

BAHIA, B

Mun. de Mucugé, Serra do Sincor
to Andaraí. Elev. 950 m. Growing
in soil near the top of mountain
with orchids and Bromeliaceae. Small
sticky leaves, few plants flower
in color.

9 May 1976

Cleofé E. Calderón, Talmón S. Santos, and

*Collected under the auspices of the Smith
Society, and Centro de Pesq.*

Flora del Anillo -

$$\begin{array}{r} 2986 \\ - 2492 \\ \hline \end{array}$$

$$\begin{array}{r} 494 \\ 189 \\ \hline \end{array}$$

Angonia

R. Negro

$$\begin{array}{r} 683 \\ 15 \\ \hline \end{array}$$

Behia

$$\begin{array}{r} 698 \end{array}$$

2496, 1st no of Amazonian collection
(not Manaus)

2519^v 1I, 5G, -^v 2I, 4G, -

"2706"

2733^v 1I, 3G, -^v 1I, 3G, -

2754^v 2I, 4G, 1R^v 2I, 3G, ~~4R~~ -

2755^v 2I, 6G, 1R^v 2I, 5G, 1R

2756^v 1I, 3G, 1R^v 1I, 2G, 1R

2771^v 1I, 2G, -^v 1I, 2G, -

2780^v , 3G, ^v 1I, 3G,

2782^v 1I, 3G, -^v 1I, 3G, -

2783^v 3I, 4G, 1R^v 3I, 5G, 1R

2784 no bulky?

2813^v 1I, 3G, -^v 2I, 3G, -

2833^v 2I, 3G, 4S, 1R^v 3I, 3G, 1R, 2S

2846^v 1I, 4G, 1R^v 1I, 3G, 2R

2867^v 2I, -, 1R^v 2I, -, 1R

2870^v 1I, 4G, 1R^v 2I, 4G, 1R

2873^v 2I, 2G, 1R^v 2I, 2G, 1R

2829^v 1I, 4G, 1R^v 1I, 3G, 1R

2818^v 2I, 4G, -^v 2I, 4G, -

2874^v 2I, 3G, 1R^v 2I, 2G, 1R

2894^v 2I, 4G, 1R^v 2I, 4G, 1R

2910^v 2I, 5G, 1R^v 2I, 5G, 2R ^{ch}

2911^v 2I, 5G, 2R^v 2I, 4G, 1R

2926^v -, 3G, -^v -, 4G, -

2966 & 2970

G - IDENTIFICAÇÃO DOS RESPONSÁVEIS PELA I

RESPONSÁVEL DIRETO: MA. SÍLVIA de MENDONÇA
Nome

LOCAL: INPA

COORDENADOR SUB-REGIONAL: _____
Nome

LOCAL: _____

COORDENADOR REGIONAL: _____
Nome

LOCAL: _____

H - OBSERVAÇÕES

2496, 1^o no of Amazonian collection
(not Manaus)