

Brazil 1972

②

Rio

Perma Hide®

MEMO BOOK

NO. M46

100 SHEETS



NEW YORK LOOSE LEAF CORP.



Atreantoe

1/2 Brazil 1972 2341

Bambusa (Pimenta)

Co. Municipio de Valle n° 2

San Juan de Valle, Antioquia

Valle to Guatiquia

Alt. 1000 m. in valley

1st fl. base - roll 18 ft

26 - 40 m

color - roll (Bambusa) 7 ft

20

soil sample # 53

F.A. - dry (250 m) (good) one

leaf. soil of black with white

edges of slope, culture (black)

open

Edge of "open" area

very good

thickening (very) dense

damp - up to 100 m

leaf

Bambusa solid, 100 m

Also

5991 1955

5.8

Attractant

1 ml

April 26, 1972

2241

Bamboo (firmito)

Bo - Municipio de Valencia, 11
km North of Valencia, Rd from
Valencia to Guatirim

Alt - 10 m. S. m. m.

Photo 5 x 7 roll 18 from
26 to end

color = roll (Ektachrome) 7 from
20

soil sample # 53

FAA = 16g (250 cc) plastic (good) nod.
leaves, base of blade with petioles,
culms + sheaths, culms (leaves)
Dense

Edge of "mate saix" low
tree forest, in sandy soil
climbing, forming dense
clumps, up to 8 or 10 m
high

Culms solid, flexible, thin

1 cm or less in diameter.
Bulb sheath deciduous, glaucous
falling away, 4, bent down
ward, 3 or more branches
from a node. They branch
also very soon.
Leaves glaucous, long, & narrow
lanceolate.
Stem smooth, covered by a
white wax or dust.

2nd

2242

Shrub *Arnonia*
60, M. Valencia, ± 18 km NNE
of Valencia, Road to Guadalupe

In "campo" - open area
sandy soil, broad patches
of bromeliads and other
tropical plants.

FAA has a inf
150g - inflorescence -
no soil, no photo.

These "campes" don't look
like the "campes" of
Belen. The open area is
full of Cyperaceae but many
grasses also. The forest seems
look like "restingas" or
very low, poor forest.

(Desv.) Dandy

2 vials

Hypogynium virgatum 2243

g. Inf with bracts

same place, open areas
of "campes"

sandy soil, white sand
very hypsaceous

Near the coast, little
town of Guaiçim with
beautiful beach.

(Photo in Guaiçim beach -
" of Raímon do - in color)

FAA inf a leaf -
Bore inf

62 vials

4 vials

K, M, O, N, X, P, L, E, B, F, G, W, E, S, C, W, S, I, S, P, C, O, L, P, R, E, 2244

Pisonia leptophylla

CAPE, C, PE

Bo, Marajó, Valença, Rd. Valença
to Guaiçim, 12 km North of
Guaiçim S.W.

soil sample #54

alt. ~~25m~~ 25m S.W. ~~near~~

Very abundant all over
the forest. Delicate plants
in rather loose, open clumps
under forming ~~under~~
below other plants.

Sandy soil, very sandy. ^{thin}
Open forest, of small trees
(no inside any other or
any grass). It was one
of the first patches of forest
in edistado after the
campes and restinga

Many herbaceous plants
growing there, mostly
monocots, Pandanus, Hibiscus,
and ferns.

Plants in open, cut
spots or along trail
very small, about a
half an inch tall, very
light, poor green. Those
growing in tank place
beautiful, tall and
robust. All plants
with flowers from the
base, very few with a
small inf. at the
top of the main culm.
Inflores. small, green, light
but many also red.
Roots - very thin and
long!

Photo: 5 x 7 roll 20 - from 1
to - 6 or 7

color: Ektachrome roll

FAA = 2 nodes, 2) leaves, sphl,
in fl. - shoot apex - root?

b) seedlings - (very few)

Borg = many sphl + flowers
3:1 = " infl. in + stage

Living plant = collected

Soil sample = 54

no temperat. (note, no
time)

Few seedlings seen (but
it was late and dark,
little time to do ~~the~~
everything).

Seedlings per collected look
like other seedlings of
Pisonia - with first
fully developed blade

horizontal but long,
narrow lanceolate and
acute. It was that
immediately the main
primary shoot branch
and give a little, tiny
shoot with a leaf of
complex of many
leaves.

Next day, April 27 was
a horrible day, we
trav for hours,
and made several
stops and we didn't
find anything.
From Valencia, to the
West side there is a
road. The only thing
we saw and with
old inf. It was *O.*
ramosissima and
an usual *O. latifolia*.

3 vols

April 28, 1972

2245

Raddia sp.

Ca, Municipio de Mboira, 6 Km
North of Mboira.

Rio Jequirica

Alt. J. m. m. 250 - 270 -

Photo ^{b&w} roll 20 from 7- to 23
cols; Kodachrome roll #8 from
1 to 15 (there are photos of the
stream, forest around the stream
and bats from the road
ward of the river and edge
of the forest.)

b & w = there are photos of my
"comparative" and stream.

soil sample # 55

3 vols. FAA, bag, 3:1

FAA = leaves, shoot apex,

inf, ♀ & ♂, per roots

botanical = inf ♀

3:1 = inf ♂ (at all)

2246 - *Streptocarpus*

~~2247~~ ~~*Streptocarpus*~~ 47 Darwin

Some of the fixed material
it might not be in good
condition. Plant collected
up in the slope were
so dry and "mutilated"
that I think are not in
good condition. Many others
are in good shape, the
first ones collected at
the edge of the river.)

Very abundant! all over
the front in a smooth
slope and near ~~about~~
~~the edge~~ of the river. The
area, especially the slope, was
in a miserable condition
extremely dry, most of
the plant, even trees looking
dead. Roadside growing
near the river, was in good

shape. Plants delicate,
thin; leaves small, very
thin and slightly pubescent.
Almost all plants blooming,
even the dry ^{wild} (mutilated) ones.
Terminal inf 8' long, pedicel
at an angle of the
inf. from the 2° or 3°
node below the terminal
female inf. from about
2nd node, sometimes
the last one in the
terminal ♂ system.

Small symph., ~~scaly~~
1-3 pericarpia, usually
1 or 2.

Tip of the blade, like
in many other *Poddis*,
very thick, tuft-
like. Low tree forest, not
very dense. No rain in

this place for 10 or 15 days -
Soil temp = 75° (near the
river)

Air temp - high 78°F
low (overnight) 66°F

K, MO 2246
Streptochaeta spicata

same locality

Not very abundant in the
slope.

FAA. (leaves) infl. ± young

Boys. " "

no fls., no soil

K, MO, NY, P 2247
Pharus sp. (leaves & parts)

same locality - in the slope.

some specimens with terminal

infl. spread in the main

axis of the infl. (Specimens

very dry and "musty")

FAA few leaves, infl.

Boys. "

2 vials

Pennisia rhipidophylla
April 29, 1972. 2248
Bo, Mun. de Ubaíra, 6 Kms
North of Ubaíra. Rio Jequiricá.

Photo: box roll 20 from 2329
to end -
no colds.
Soil sample 56
3 vials

Frequent in forest, on
a smooth slope not
far from the river.

2249 Leptochloa 1 vial

(73 v)
total 3 vials

2249
Panicum frondosum Doeb

Jan 10 1951

Jan 11 1951

Jan 12 1951

Jan 13 1951

Jan 14 1951

Jan 15 1951

Jan 16 1951

Jan 17 1951

Jan 18 1951

Jan 19 1951

May 6, 1972

2250

Roddia sp. (grande) 6
60, Municip. Jaguaquara, 4 km
S. of Jaguaquara city - Fay.
Mundo Novo -

soil temp. = 69°F.

Air temp. at 12.30 p.m.

high 66°F

low 62°F at 8 a.m. ±

Alt sea - 680 - 700 m.

F.A.A.: 4 incl.: a) large w. in the symps
recess; b) leaves & a spl. root

c) seedlings, d) few infl with 8th
♀ & ♂ in one panicle
Borg: ♀ a spl.

3:1: ♂ a spl & root tips

Photo: 5 x w - roll # 21 from
1 to 16 - (excellent! photographs!)

color: Kodachrome roll # 8 from
16 to 26 (w. flesh)

bamboo 1° - soil 58

soil sample # 57

Fazenda Mundo Novo, pop. 10
Donofrio Americo (Italiano)

Abundant, near the edge
of forest. In dense "bamboo"
forest, growing under
D. micrantha, bamboo
and other vegetation.
Large and ~~erect~~ ^{erect} plants
up to 1 m or more - Plant
perennial, (culm, sheath &
blades). Blades, large
lanceolate acute or so
because tip of blade more
or less irregular, or blunt
(Roddia type). All plants
with many inflorescences,
predominantly ♂ infl.
Flowers several from

each node (the mid and upper ones) and terminal to the culm. From 3 to 7 panicle-like frs in each node or apical, usually 4 or 5. Male symphore with thin large number of panicle-like frs. In several plants in the terminal symphore or nodes below, the last 1 or 2 panicle-like frs are female.

♂ symphore not only apical but from several nodes below.

♀ flowers in the lower or mid and upper nodes rather long. Each ♀ symphore 1-3 or probably 4 at the most panicle-like.

young, small plant also blooming and with more ♀ infl than ♂ seems to be that ♀ flowers appear first and as the plant grows older increase the production of ♂ inflores. ~~but~~ The ♀ are also found in these plants but in less proportion than the male.

Several seedling and baby plants seen around trip clumps. Seedlings are of the bamboo-like type but the first completely developed blade is not broad but narrow lanceolate and acute. ~~It is~~

It remind me of
the seedling of *Pimenta*
(seedling were collected)
It is a beautiful and
strange type of forest
not seen in other region
of Bahia. It has tall trees
but scattered here and
there, mixed with
lower trees. The profile
is very irregular, and
looks like a *ficul* forest.
It's dense and
difficult to walk
there without machete
in hand, because of the
bamboo.

Roddie (the same) in *Wax*
"mata cipo". It's the first
forest which comes after the
catinga -

Borabora

"Mata cipo" is not really a forest
but mixed of shrubs, low
trees and many "cipo". Hard
to walk in, full of spiny
plant, lots of big *Bromelia*
(terrestrial) and some "catinga".
Dry, desertic type of rep. like
the Argentinean "Monte" or the
"Chaparral". Roddie was
growing there, and very
much abundant! all plants
blooming although plants
were so little smaller than
those collected in the other forest.
"Mata cipo" is the boundary tall
vegetation ~~with~~ comes
after the "catinga" (desertic,
dry type of rep, no trees, or very
small, lots of shrubs).

2251
Bamboo (Grande)
6-8 km from Japague, Fazenda Novo Mundo

addia - 6 km S of Japague.

Bamboo

2251

Merostachys

culm hollow in + all
branches, otherwise culms
filled with soft pith
leaves green with mottled
like *O. latifolia* - hairs
retorse, slender.

Many branches from a
node.

long, hairy and may oral-retorse
culm sheath Δ very long
triangular, more or less 20°
or more in young new shoots
blade scimitar narrow Δ
culm sheath with short, retorse
hairs, a little softer

large blades

internodes not very long $\pm$ normal

Dense clumps

culm $\pm$ 1.5 cm diameter

climbing up to 15 m.
Soil temp 67°F low 58°F
temp 60°F at 4:40 p.m.
b & w - Roll 21 from 17 to

31
color, Kodachrome #8 from 27
32nd flash.

34, 35 - passage subjects & be
cuddled at night.

Merostachys *fischeriana* *Trinquet*

May 7, 1972

2252

Bamboo (finit)

8.5 km S of Jaquiquine city

Merostachys

Shrub from Jap.

K, M, O, N, X, P, L, E, B, F, G, 2252

7' bamboo - finit

Alt. 700 m

B & W photo: roll 21 from 32

to end - & roll 22 from 1 to 16

color - not yet rain.

soil temp. 67

Air temp. 62 at 11.30.

soil sample: 59

alt = 10-12 m

and below, thin wall

~~no more than~~ 1 cm in

diameter, climbing

many branches from the

middle

2 vials = leaves, see a petiole

short apex.

2253 *Schizanthus*
2254 *Pharus* per terminal
↓ soil sample 60

Schizanthus = 2 vials FA
Balg
Pharus 3 vials -

Pharus roll # 22 for 16: to
29 -

"*facuaremba*" - n.v. & *Olyra*
latifolia -

- AA7
- 2008

~~Lebanon~~ 2253
Panicum sp. - M. Hickey -

FAA -
Bocg -

K, MO, NY, P 2254
Pharus (with apical, terminal
spike).

13°32' N. 37°55' W
alt. 700 m.

Vegetation in forest with
bamboo dominant.

May 8, 1972

2255

Piresia rhipidophylla
Mun. Japraznara: 6 km East
of Japraznara City: Fazenda
Mundo Novo.

ca. $13^{\circ}32'30''S$ - $39^{\circ}55'W$

Alt. 700 m

Tupac in forest with
bamboo dominant

no photo, no soil

Atractantha ovalanata

May 8, 1972

2256

Bamboo (first to be collected, below check)

Co., Municipio Jaguaguana,

Piache de Otero, at 22 Km

SE of Jaguaguana city

Alt: ~~625~~ 625 m

Photo: base roll = 22 from

30 to end. & roll #23 from 1 to

13:14

Color: Nodes & internodes all #9 from

14 to 28 029

Soil Temp = 70°F

Air Temp = high ~~70°F~~ 72°F

Climbing 50-60 m ± dense

clumps up to 15 m ±

Thin culms ± 1 cm in

diameter - solid, flexible

Bulb sheath persistent

or late deciduous

base to node 2257

base to node 18 collected!

blade Δ with large curly
stol setae and hairs, long
recurved on the edge

A ring, like a crown
of hair at the base of
(below?) the node.

One main branch
in each node and
several small, thin
ones.

In young thin branch
sometimes hard to

see if there is one
layer than others

leaf thin, lanceolate,
with short oral setae

(white).

Many branches per node
but the initiation of

branches is upright

not like in the next
bamboo - (intraxial)

soil sample # 61

FRA-2 vials, 2) 250cc with bud,
b) small with blades, petiole, shoot
apex & roots

Rizome collected

Beautiful bamboo with three
"rings" of large, silky, hairs of
beige color & long, curly oral
setae.

It is very abundant all over
the forest, and in some places
mixed with the next (2257)
bamboo.

Rest of beautiful forest, in part,
(the back) cut & burnt.

Microstachys

same day

2257

Bamboo (candona)

Rio. Mem. Japueguara, Riacho
de Ouro, 22 Km SE of Japue-
guara City.

Alt: ~~WSD~~ 625 m sea level

Large, tall bamboo ca. 20 m
tall. ~~***~~ overhanging over
trees

Culms ~~WSD~~ 4.55 cm
in diameter. Dark green;
in the upper part of the
internode with a white wax?
Culm sheath large,
narrow, rounded at
the tip, black deciduous.
Only in very young new
culms seen. They are
smooth, no hair or spine;
abaxial surface shiny,

glory.

Bulb hollow and
very strong.
Many branches per node;
in older culms seen that
branches are in two or
3 rows about all
around the node.

Each branch with a very
small leaf complement in
young culms, few leaf,
broad, "Olive type". In
older, larger culms

blades longer and narrower
not so wide.

Blades rather thin, in rather
pubescent?

Clumps not very large

River Arizona collected.

Long internodes, ca. 26-32
inches long. 65-80cm

Soil sample #

FAA = 3 vials.

2) Laps 500cc with seed &
shoot apex

3) leaves (older culms)

c) " (young, shoot).

Soil sample # 62

Photo: 5 x 7 roll # 23 from 15th
to end?

color: Kodachrome (no pan) roll 9
from 28 to end.

Branches rather thick with
the base covered by several
bracts (or sheath with no bracts).
Associated with the other
bamboo (2256)

Chusquea (Retbergia)

May 9

2258

Bamboo (bud below sheath!)

50 Municipio Japaguana,

36 Km SE of Japaguana city

Alt: 360 m. s.m. m.s.

Soil temp 72°

Air temp at 12.30 = 70°

(little rain)

soil sample # 63

Abundant, along and near
river, (stream or a creek).
Common bamboo, looks
like one Olyza, small
clumps, herbaceous? or
up to 5 m. but usually
erect short about 1 or
1.50 m.

Culms solid but rather
soft (herbaceous?)

Buds below sheath (but
they break through a
slot of bract or the base of
the sheath that seems to
cover it below the node.

Heens that there ~~is~~ one
central, main bud and
1 or 2 on each side.

They develop in 3-5 branches
sometimes one larger
than the others. Bracts
with leaf-complement
grow up side down, i.e.
in opposite direction that
the sheath (with buds) of
the culm.



Bulm (Pteris)
under the permit at
very ^{rough} (retro-ascending)
with long, ~~open~~ acute
blade? It looks like it is
very little differentiation
between them.

New culms erect up to
2 - ~~3~~ ⁴ if more,
weak and leaning
against other plants.
Culms no more the
1 cm in diameter or
a little more.

Very large leaf complex
and very large, broad
lanceolate leaf blades -
blades thin, very delicate
(unusual for a bamboo).
They look exactly like
one. Only but much
more than 0.10.

folia.

In other part of that forest
we saw one much taller,
probably 8 m tall.
Forest - one of the most
beautiful I've seen in
Borhio. The road
cut through the forest.
One can collect almost
from the car. On
the right left hand
side of the road (coming
from Japaguana) it's
the creek where
we collected the bamboo.
On the other side of
the road the forest
goes up (a slope of
a hill) to the top -
there I couldn't see that
part of the forest.

Pinheiro was near and
start to rain ~~thickly~~ ^{lightly}. The road, from
Japnaguana is not
very good but quite
acceptable in good
weather. But from
that area coming
down to Apuarema
and Staibo the road
is horrible, impossible
to go with rain.
All that road from
that place and even
before, up to Apua-
rema, ~~there~~ is beauti-
ful. There are many
places with forest
along the road or very
near. Staibo has forest
but it doesn't look

so beautiful ~~thick~~ like
that area. (Pinheiro
didn't know of that
spot.)

FAA - 2 vials: 5ml (light)
b) leaves a petiole with some
of Glade.

Photo 5 x 7 only - roll
#24 from 1 to 21

Ayond: collected.
(From Japnaguana to
this place it's about 1 hour
or a little less. (with a pick up
Willet) From there to Ipiari
it ~~was~~ took 2 hours
and a half.

May 10

2259

Ba, Municipio

7 Km North of Minatitlán

Olyra scandens Swell

^{new off.} gigantea
Olyra (Radd.) ~~scandens~~?

(Same spot where I collected before).

Large plants in dense clumps up to 3 m tall. Very few plants with flowers. Inflorescence borne in a separate shoot from the base of the plant. Variable in size, small (probably the first ones, ~~they~~ about 50 cm or so but most of them very large (1.20 m) with the flowers at the apex of the culm and

also from several
nodes below (1 or 2
partial inf & node)
Large leaves of these
culms with very reduced
or small blades.

Large paniculoid inf, open
Spike rather large (+ like
O. latipolia).

No fls, no soil

FAA

long.

cf. *Merostachys temata* Nees

May 10 K, MO, NY, P, LE 2260

Camtsoo (huge blades
to, Municipio Tlaxiata, 12 km
N.E. of Tlaxiata, (going to
Br 101.)

Alt. = 225 m

Soil Temp. 72

Air Temp 68°F at 4.30 p.m.

Soil sample # 64

Photo: per b+w roll # 24 for
22 to 26.

FAA = 2 vials: 100 cc with leaves,
500 cc with seeds.

vignosa: collected

Large samaras with the strob,
below culms, one arising
over repetition, about 8 m?
or more. ~~by~~ Usually 3
branches from a node
sometimes 2, and the

middle one deeply like
thorn, small, covered by heart-
large, huge leaf com-
ment. The branch ~~the~~ with
the leaves ~~as~~ ~~the~~
up to 1.80 m.

Blade broad lanceolate
strongly asymmetric at
the tip. lce. 40 cm - 60
cm long, strong, glab-
rous.

bulbs very hard, $\pm$
1.5 - 2 cm diameter.
with a wide ring of
hairs. bulb surface
superficial - bulb sheath
also slightly appressed.
Some times 4 branches
from a node.

Abundant in beautiful
forest, on a slope

(no time for many observa-
tions, rain and ~~the~~
I didn't wait to work -
the working alone) but
we collected the Samboos!
finishing about at
night.

Paradiolysia sp.

K, MO, NY, P, LE, B

May 11, 1972

2261

Bo Municipal de Itajai to
Colônia, 18 km NW of
Itajai de Colônia, on road
from Sta Cruz to Vitória
to Itajai.

~~*Olyra* ? sp. (glaberrima?)~~

Paradiolysia sp.

Abundant, in some places,
dominant plant in forest.
Forest is open, but at
present in very bad
shape, extremely dry
after many days without
rain. There was a
small stream here,
now dry.

Pretty *Olyra* in $\pm 70-100$
height. Infl. - a panicoidium
terminal to the culm on
and from 1-2 nodes

below; in some plants, 2
partial inflores. per node.

All infl. paniced flowering
and only one plant with
a young infl. (in herb.)
and a youngest one (in FAA)
but "mustier".

♀ spike small.

Roots: very strong and
thick, *Paradiolysia* type.

FAA: 1 node with leaves
& 1 inflores.

Soil sample # 65

no pots, no temp.

Alt: ± 170 m.

This forest is probably
one of the few spots
still remnant in a
large area, where
forest was cut over
and at present turn

in baskets. Very dry
no rain, erioch ?

In some places the
Olyra in association
with the Roddie (Brazilian?)
and Roddie polypodioides.

2262

Same place

Streptium guianense

~~Roddie~~ *polypodioides*

Common in many places
of forest. Plants are
not very pretty due to
a dry period but still
with many ♂ flowering.
Very few ♀ seen, all
of them forest.

In some places with
Olyra sp and R.
brasilianus?

FRA - leaves & some
♂ diff. some lost apex
no photo, no soil

2263

same place

Roddie (Basilini?)

Common in dry forest
of all three species
collected this one seems
to be the less affected
with by the lack of
water. Few plants
withered in place
but I saw many new
shoot coming from the
base of old clumps.

(The same for R.
polypodites)

Leathery, thin, glabrous
blades. Looks like
the Roddie of Horcove do
I collected with Tomas.

Also I think I collected

in the 2° Safford (South
near Itapaci) (beautiful
stream) also with the other
2 other Roddie.

FPA - leaves

no photo, no soil
(Llio was sick and
we were in a hurry
stop driving from
Ipitani to Ruda.

Bamboo from Mue
15°15' S - 39°06' W

2261 Olyra sp. - soil 65. - 70%
2262 Radd. polytr. - May 11
2263 Radd. brand. - May 11

Atractantha cardinalis

May 12. Mue 2264

bamboo finite.

Bam with 24 from 27 - and

~~also with soil 10 from 1 -~~

lost one lost (open canons)

and soil 25 from 1 - to 5

high temp 76°F

low 70°F

soil temp - 75°

Bulm. npt. apertus, solid

CO $\pm 1\frac{1}{2}$ diam or less

low sheath $\pm$ persistent

blade deciduous & long.

Smooth & slightly sparsely

Many thin slender small

but one main one

10-15

2265 *Merostachys*

Bamboo ② Lvs lanceol.
roll 25 from 6-22

2266

Bamboo ③ Lvs united on one side
roll 25 from 23 to 30

② *Merostachys* 2265

Leaves below aretoeashen
"like". Many branches &
nodes. $\pm$ equals size in
leaves below with thick
nodes, ramp-like. ca. 15 cm
with culm sheath persistent
with thin & glabrous
leaf complement $\pm$ large with
large lanceolate broad
leaves. ca.

Internodes long $\pm$ 70 cm

(*Polypodium*?) asymmetric
Atractagile
grasses collected -

3° Bamboo 2266

Internodes $\pm$ 40 cm
Branches & nodes in
main culm but in the
young branches, at the
top main axis 2 or 3.
Culms solid very strong
and hard. Culm
sheath persistent
with nodes for narrow
triangular ^{bent downward} with oral setae.
 $\pm$ culm culm sheath very
soon deciduous.

Culm $\pm$ 1.25 ~~in to 1.5~~ cm
- diam. flexible over
repet. up to 12-15 cm
leaf complement with many
leaves.

Leaf long, narrow with
strongly asymmetric placed
midrib, not pubescent

Loc. 35a8:

7 Km S

Rd. Nua - Oliveira, 7 Km North

~~or Alt.~~ Mato Litranes -

very abundant, col 3 -

soil sample # 66 for all

35a8

M. Alt: 50m

2268

Paniamelle

4 vials

soil sample # 68

5.5 Km S from Nua

4 vials

15° 19' S -- 39° 05' W

10. 11. 1961

Thurs 6

1st. 11. 11. 1961 - 1st. 11. 1961

2nd. 11. 11. 1961 - 2nd. 11. 1961

3rd. 11. 11. 1961 - 3rd. 11. 1961

4th. 11. 11. 1961 - 4th. 11. 1961

5th. 11. 11. 1961

6th. 11. 11. 1961

7th. 11. 11. 1961

8th. 11. 11. 1961

9th. 11. 11. 1961

10th. 11. 11. 1961

11th. 11. 11. 1961

12th. 11. 11. 1961

13th. 11. 11. 1961

14th. 11. 11. 1961

15th. 11. 11. 1961

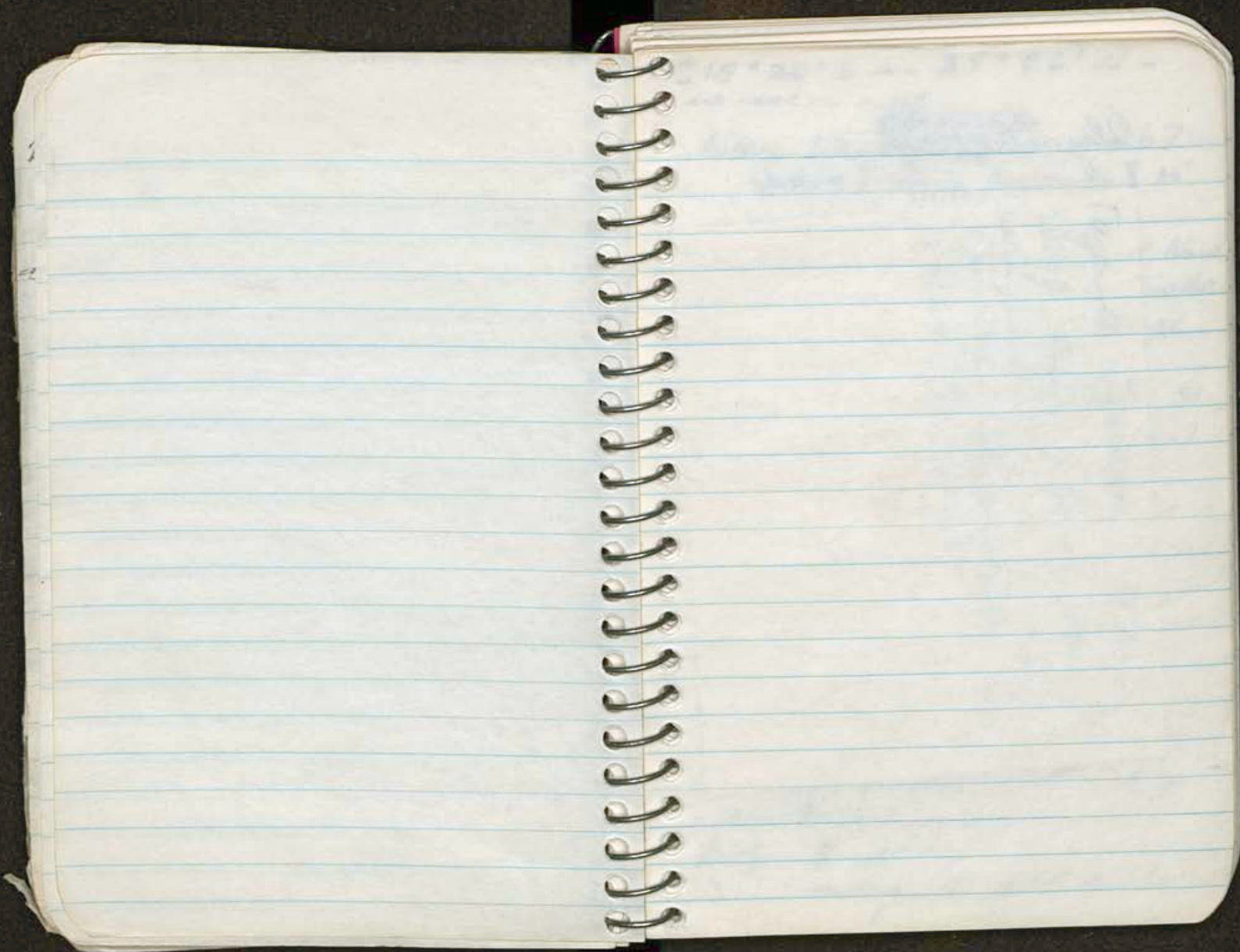
16th. 11. 11. 1961

17th. 11. 11. 1961

18th. 11. 11. 1961

19th. 11. 11. 1961

20th. 11. 11. 1961



Olyrae sp.

$\pm 15^{\circ} 20' S$ -- $39^{\circ} 06' W$ -

no seed in map.

May 13 ~~Alvinia~~ Nicorea 2267
(~~Alvinia~~) Olyrae 2267 3/4

Agavea Sprague, 31 Nov
W. of Nue (Saco river)
belongs to:
former Dendroica sp.
(H. P. Pinteric)

paralela

egg: ♀ sphi.

3:1: many ♂ sphi. and

Olyrea sp.

$\pm 15^{\circ} 20' S$ -- $39^{\circ} 06' W$ -

no seed in bag.

May 13 ~~Alvimia~~ ^{Nigoree} 2267
~~Alvimia~~ } *Olyrea* *tripartita* 3 H'

Bo, Municipio de Muna, Rod. Muna
Santa Luzia, 10 km S.W. of Muna, Rio de
Pimentas & Pimenteira, Faj. S. Jorge.

Alt: 25 m s.n.m.

Photo. bow roll # 25 for 31
to end and roll # from 1
to -

color: Kodachrome roll # for
1 to -

Soil sample # 67

Air Temp. High at 12.30 p.m.
80°F.

Soil Temp. = ? ^{find alternative way to measure} ~~temp. not taken~~
FAA = 3 vials, 2 leaves, 1 spl., 1 root after
b) seedlings - c) synflora with many
parasitoids

Soil: 2 spl.

3:1: many ♂ spl. and

2 some very young & small.

Plants up to ⁷⁰ 1.50m high.
Some small to 50 but there
~~are~~



Ms Calderón--

Mix-up on numbers 2121: which is correct?

There are some loose specimens of yours from Brazil at end of your cabinets: we should look at them and decide what they represent.

Reddie breiiliensis

Rio de Janeiro.

South Matto Grosso

Behia? Pernambuco?

R. portoi

Behia -

R. everts

lanata

sebilis

prolifera

stolonifera

purpurescens

} *Bahia*

R. 1000

1000

1000

1000

1000

1000



2158

Paraná, Est. of Paraná,
± 3 km from Curitiba

between the Paraná and

Rio Paraná -

Lochnerium stans L.,
Passiflora &

FAA - leaves

Nov. 3, 1971

2156

Recurva, Inst. of Forestry
3 km from Granito tower
the Reserva del Bayano.

~~Bombaco~~ (2)
~~Phyllanthus~~
F.A.A. leaves
~~Phyllanthus~~

2157

same place and etc.

~~Polypodium~~
~~Utricularia~~

small plants growing in the
the bamboo

F.A.A. leaves
250091 - 443

2155

Nov. 3, 1971

Parana, Prov. y Parana,
3 km from Abitia, towards
the Reserva del Boyano.
~~El tipo = brente?~~ Chusquea

F.A.A. Kern

Plots - all #4

Nov. 3, 1971

2153

Panama, Province of Panama

3 km from Avenida

toward the Republic

Barro -

Stylocryptus rostratus

FAA = known, in house -

3:1 = in house -

berg = in house -

house here.

Plants of (fruit

FAA? no?

K₂WIS

2154

2150

Nov. 3, 1972

Barro Colorado, Part of Barro Colorado
3 km from Barro Colorado
toward the Barro Colorado
Barro Colorado -

Aboulaya Rhipidocaulon?

FRA = leaves

2151

Same place + date.

Olyra latifolia

FRA - leaves

2152

WIS

Plow up. (stud)

FRA = leaves

2149

~~Pease, Pennine Canal
Barro Colorado Island,
Monto, Whelan Trail 9
Ortostroma lola~~

~~FAA. Leach, Milwaukee~~

~~no fly - Pennine~~

Nov. 1, 1972

2149 s

Pennine, Pennine Canal,

Barro Colorado Island,

Monto, Whelan Trail 9

9° 09' 60" Lat. North

79° 51'

Long West

Alt: 400 ± m. s. m.

Phorus (small)

Nov 1, 1971

2147

Panama, Panama Canal

Panama, Panama Canal

Panama Canal, Panama Canal

Panama Canal, Panama Canal

9° 09' 50" Lat. North

79° 51' Long West

Alt. ± 500 m. s. m.

Phaner

~~F.A.A. - 1000~~ ? mo?

2148

Nov 1

Panama, Panama Canal

Panama, Panama Canal

Panama, Panama Canal

Panama, Panama Canal

9° 09' 50" Lat. North

79° 51' Long West

alt. 400 m.

Strophoglossus

Kingbird: collected

F.A.A. = 1000, to Spk.

rocas parte de

2182

2184

2231

2250

FAA = Leers, ~~leaf~~
bag: no

Alphitoea rostrata

Alt. 550 m. 1 m.

79° 51' Long. West

9° 09' 50" Lat. North

A. Arizana Trail 5-8

Cerro Colorado Volcan.

Panama, Panama Canal

2146

Nov 1, 1971

Panama, 1971



Handwritten notes and a small sketch of a plant with three leaves. The notes include:

- 3.8
- 1.9
- 1.1
- 0.5



Handwritten notes on the pink page:

- 62
- 11
- 73

2nd York
Pavement 1871

Geo.