

The image shows the front cover of a record book. The cover is light-colored with a decorative border made of small circles. A large, stylized letter 'R' is formed by a double-line border, and a large letter 'E' is formed by a similar double-line border. The word 'RECORD' is printed in a bold, sans-serif font in the center of the cover. The book has a red spine and red corners. The spine is visible on the left side, showing the binding.

RECORD



F. R. Fosberg  
Book No 64

Collection and Field Note Book

1952-53 ...  
1953-54 ...  
1954-55 ...  
(1955-56 ...)

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Collection and Field Note Book

No. 64

(July 1, 1962 - July 31, 1962)

(42513 --- 42972)

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Pages = 47917

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1942

Florida

1

July 1 - flight from Miami  
to Montego Bay, Jamaica.  
(Viscount - st. side)

West of Miami airport some  
land is cleared and grassy,  
with much disturbance.

Then extensive gray-brown-  
green areas (saw grass?) with  
scattered greener spots and  
small patches of trees,  
mostly small and open.

Roads and cultivated  
patches are light colored,  
suggesting sand.

(Just west of airport the  
ground seems to be coral  
limestone)

Southward and back  
toward the coast a large  
proportion of the land is  
occupied by subdivisions,  
mostly somewhat inland.

The coast, itself is wooded,  
even swampy. Some of it  
seems to be cut up by streets  
but no houses yet.

The bay seems to be a  
lagoon behind a barrier  
island or chain of islands.

Much of the bottom in the  
lagoon is of submerged  
reefs. The islands are  
wooded but much cut with roads.  
Outside the islands a shallow shelf, fairly  
wide, with a great complex of submerged reefs.

Off to right, the chain of islands becomes the

Florida Keys.

The edge of the shelf is abrupt, and water immediately becomes deep and blue.



Islands off north coast - narrow outer barrier with a few sand cays. Then a complex of more extensive islands largely mangrove swamps with tidal channels, ~~swamps~~ and patches of higher thinly wooded sand, surrounding a very shallow lagoon with irregular sand cays, these thinly vegetated. Then deeper water with a few small islets.

9:14

Then the coast (only slight reef development here).

Narrow mangrove and some wooded land, then patches of cultivation and much savanna or pasture with some scattered trees.

9:16

An area of more intensive cultivation and a small patch of sand dunes (?) white patches.

Then an irregular but angular mosaic of cultivation and pasture - mostly green - soils dark purplish. Trees very sparse and irregularly distributed, narrow gallery along streams.

9:18

More relief, brownish rather than green, still largely cultivated, patches smaller, paler, sand color. Locally very light.

9:20

Plantations dark purplish to somewhat reddish soils.

9:21

pastures, soil purplish but apparently thin over a pale subsoil - at least roads and brown pits very pale.

(Marajibo - 75 mi. n.w. of Camaguey)

9:22

red soils - large cultivated or plantations, some pasture or savanna.

soil gradually darker red becoming purplish,

9:23

more and more in plantation still some large blocks of savanna. Some seems

9:25

to be pineapple plantation, from color, but possibly not. rectangular pattern.

then sugar.

Then an irregular flat mosaic of burned areas, scrub or scrub forest or savanna.

9:26

South coast, with a narrow belt of coastal forest.

9:27

A series of small islands - wooded, one seems to have mangroves in interior, all have some ponds.

9:28

A larger very irregular island, mostly mangrove, with white sand peripheral strip. Then a whole complex



of islets and a very irregular barrier island with mangrove on the inner (north) side, a beach and beach ridge on outer side. A patch of rather shallow water, greenish, but mostly a dull blue, not the deep blue of the Pacific tropics.

9:30

9:33

Three more islands, and others westward, forming a chain. Interiors mostly mangrove, some patches of higher sand, apparently grassy (brown). Islands surrounded by beaches and beach ridges.

9:35

A scattering of tiny sand cays on submerged reefs. Some vegetation.

9:38

More extensive islands farther to right and one almost on course. Mostly mangrove with peripheral sand ridges. A large reef complex forming an atoll like structure, but rather irregular, surrounding a lagoon.

9:39-

41

Another complex perhaps a part of a general barrier but many mangrove cays and a few sand cays and a

shallow reef with submerged "tidal" channels surrounding a lagoon with a brighter green bottom (Thalassia?).

10:17

Then abrupt dropping off into deep blue water. Entering Montego Bay, Jamaica. Mts on s.w. & w. sides irregularly wooded, much shifting cultivation and clearing.

S. of harbor a complex of mangrove islands.

Off airport a good coral reef. Hills s. of airport wooded, some clearing and houses on west part.

10:16

landed at Montego Bay airport.

Plants seen

*Delonix regia*

*Cyperus rotundus*

*Chloris inflata*

*Cynodon dactylon*

*Paspalum conjugatum*

*Catharanthus roseus*

*Hibiscus cf. rosa-sinensis*

*Caruarina equisetifolia*

*Coconut*

Tidal flats, ~~with~~ <sup>with</sup> bare, some with scattered small mangrove, around air strip.

Reefs to east are very narrow; water deepens very rapidly.

Left at 10:47 for Kingston



Coastal strip very narrow, hills begin almost immediately. These are karst-like, with scrub or scrub forest, green, cultivation on moist gentle slopes and hollows between hills.

Southward the karst becomes less pronounced, more flat ground, less hills - the hills still covered by spontaneous vegetation but this more savanna-like. Karst again becomes more abrupt, hills densely wooded. Visibility becomes poor because of clouds.

10:53

In breaks in clouds a striking karst, all wooded, no significant amount of ground level enough for any sort of cultivation.

10:55

crossed a dirt road, shortly afterward, another and a village with in a broader valley, still karst, some clearing.

10:56

Then an intricate mosaic of clearing and tiny abrupt wooded hills with flat ground between them, but very narrow. Some scattered settlement here, soil red,

but general aspect green. Flat intervals become somewhat wide, more settlement, some roads, but clouds very thick. A wide flat valley with a more important road briefly paralleling course. Villages. Red badly eroded ridges perpendicular to course.

10:59

11:01

11:02

Rather thick settlement along a network of small roads.

Some savanna area, but landscape (as far as can be seen through clouds) still karst-like, but not so abrupt.

11:04

Drainage now dendritic and ~~more~~ vegetation mostly a green savanna, with some cultivation, relief still sharp.

11:05

becoming more wooded but still largely open, with network of roads on ridges, houses numerous along these. Clouds.

11:06

Topography gentler soil very red. General color green - mosaic of pasture, scrub, cultivation, savanna.

11:07

Some tendency to karst,



- 11:03 Plantations and main road.  
A fair sized city.  
More plantations.  
A wide flat river valley.  
River somewhat meandering,  
lined with narrow gallery.
- 11:09 Flat plain, all in sugar  
and banana plantations.
- 11:10 Area of dunes(?) then coastal  
mangrove and mangrove  
islets around Kingston  
Harbor. This rather muddy  
green. A few poor reef patches.  
Kingston Airport on a  
flat peninsula south of city.
- Plants seen

*Cynodon dactylon*

*Cyperus rotundus*

*Ex. lanceolata guineensis*

*Cochlospermum variegatum*

*Desmodium oleander*

*Agave americana*

*Heliconia rostrata* x *schuyleriana*

*Casuarina equisetifolia*

- 12:12 Left Kingston for San Juan, P.R.  
Lagoon south of an strip, lined  
on a side by mangrove, inland  
on islet or peninsula is an  
apparently deciduous scrub,  
with scattered *Casuarina* forming  
dark ~~at~~ spirelike emergents,  
(possibly not *Casuarina*) (Cactus?)  
(or both)

Causeway to shore ends  
in a horrible treeless  
subdivision.

A small valley on the  
south coast, east of the  
causeway, is scarred from  
quarrying.

Middle slopes of mountain  
are wooded, upper slopes  
mostly open - possibly  
*Gleichenia*.

Lower slopes covered by  
green scrub, with scrub-forest  
or forest in ravines.

12:07

Crossed an alluvial fan  
in a valley mouth with  
a wide bare gravel  
dry river bed.

12:08

Mountain slopes are  
a mosaic of clearing, grass,  
and scrub. This is the coastal  
range. The next one inland  
has more clearing and less  
scrub. On coast range  
are patches of larger forest  
in ravines and a few on  
hill tops.

Clearings (recent) show  
a white appearance - rock?

12:11

Crossed a valley with  
a wide, braided gravel  
river bed. Valley bottom  
in bananas and pasture,  
some coconut plantation.



Coconuts abundant on lower coastal slopes  
 12:13 A small bay - slopes here mostly in coconut patches of scrub. A small mangrove swamp at head of bay.

east of this a mosaic of cultivation and scrub & pasture  
 Along coast some swamp areas - mangrove, the first of them a dark gray - apparently burned recently. Next one green.

The general landscape of this ~~eastern~~ peninsula is green. The ultimate peninsula is wooded except for some savanna on the distal lobe. (Mount Point)

12:15

Opposite south <sup>point of view</sup> peninsula of Hispaniola.

This is brown, with wooded ravines.

In distance a bare white river bed comes down to the sea.

On the peninsula a small mangrove swamp and small lagoon back of a festoon of barrier islands.

Large island east of peninsula - west <sup>lowland</sup> ~~lowland~~ dry and brown, wooded only in

ravines, eastern third wooded.

North of it a barrier reef encloses a large ~~sea~~ lagoon.

The eastern leg of this barrier reef, running straight n-s. is wide. A conspicuous surf is breaking all along east side. No cays on east side but one small one on lagoon side.

For some distance the south coast of Haiti is in view but too far away to see much of its vegetation. It is generally slopes rather steeply to the sea - seems to be brown rather than green. It has the aspect of scrub and savanna, rather than forest.

12:24

The coast swings south. The slopes ~~are~~ are brown, seem to be mostly savanna with small patches of wood. Well inland it seems to be forested on the mountain slopes.



1:20

At no point there is a town at the mouth of a valley, or an alluvial fan. A road goes directly inland.

Southeast of this, along the coast is an extensive barren area, apparently dunes with scattered vegetation - very pale in. Bright red soil just inland, and an extensive plain with open scrub <sup>forest</sup> irregularly mottled with small patches of savanna. This plain gradually slopes up to the low hills inland and, irregularly, the forest becomes more closed, but large patches are still open, some even verging on savanna.

Large lake in the distance to ~~right~~ left.

Some relief, low gentle hills, completely forested except for a few small clearings on the inland slope. This forest extending west to the mountains south of the lake which have a band of savanna from half ~~to~~ way up to near the top. Tops hardly wooded.

1:30  
course  
comes  
out

1:33

Next range of hills ~~to~~ inland is mostly cleared, a mosaic of shifting agriculture, with more wood up the slopes and on the higher ridges mostly forest. East slopes almost entirely cleared and in shifting agriculture down to coast, mostly green, though some pasture.

Inland in distance a large plain, s.e. of lake, mostly in sugar plantation.

No reefs along this coast.

Interior of this south peninsula is a mosaic of clearings and wood, perhaps predominantly woods.

At head of bay in distance to left is a triangular savanna or bare delta-like area occupying north half of plain back of bay. South half irregularly wooded.

Range of mts just n.e. of this bay, heavily forested, on south slopes, anyway.

Beyond this a dry plain,



1962

Dominican Republic

west half

apparently mostly savanna, but distance too great to see. East half of this apparently a dry scrub. Perhaps the savanna is plantation, as there is a rectangular pattern of roads, this also extending into the scrub part.

Inland the mountains are steep and largely wooded.

Head of large bay seems to be generally wooded.

East of it coast swings south again and becomes dry, brown, and a mixture of savanna and scrub. Eastward becoming more dominantly scrub. A large braided rather large river bed coming down out of mountains and swinging west to mouth on a peninsula. South of this a fish-hook like peninsula enclosing a lagoon - seems sandy, partly grass, partly thin wood, a cleared area on inside east of hook - sandy.

East of this a flat coastal plain - perhaps in sugar. But color rather drab, rectangular pattern of roads.

Broad coastal area and

Dominican Republic

flat valley mouths east of this - a mosaic of cultivation & small patches of wood, some large sugar plantation (3) areas. Eastward to a small point scrub seems to be dominant.

Then coast swings sharply northeast - rather flat, some plantation (12) some scrub or forest. Visibility poor. Distance becomes too great.

1:53

Peninsula east of Santo Domingo is wooded. East of it a coastal strip, rather wide, is wooded, but inland a large area is either savanna or sugar cane - too far away to see. Probably cane.

2:07

Around a large river mouth east of this a considerable wooded area and back of it large areas of sugar cane (12). Small island off coast - almost entirely wooded. East of it, savanna, plantations and some woods. In island several parallel roads running in from or inside from a triangular clearing.



209

Coast swings south and land east of it is flat and forested, only a few small clearings.

A large peninsula along south shore a strip of dunes (?) just back of mangroves along shore.

Large island separated by a shallow strait filled with coral reefs - this island all wooded ~~is~~ except for a few tiny clearings, very flat, two what look like salt pans, light brick red in color.

Along east coast of peninsula a low scarp back a little from the beach.

East of this, another smaller but smaller peninsula, also wooded, with a scarp back of south shore, changing to a low sea cliff on east side.

At base of peninsula a similar scarp runs eastward a short distance, parallel to and back from shore. Runs into sea eastward. Then east of this a similar flat wooded plain extends to east end of island.

Some <sup>pinging</sup> reef along south coast of east peninsula, also along northeast ~~coast~~ shore. Turning on southeast, a pale green inland lagoon back of northeast shore.

These plains are probably raised reefs, but the texture of the vegetation is unusually fine and even - dark dull green. Shows no evidence of disturbance except the few tiny clearings.

2:35 reaches point of Cuerto Rico.

2:45 Cultivated down to the beach, except for a very narrow strip of dunes, on the part that bulges most to north.

~~Some~~ some orchards - citrus?

2:55 Fringing reef very narrow. Crossed a low flat peninsula again cultivated to the beach.

A black pond in it. Also a swamp back of a small bay. Much grass pasture east of this, and a village then, coconut grove and swamp on northeast corner.

2:55 San Juan

Back of airport is a lagoon with a good mangrove swamp on its north side.



San Juan airport

Plants seen:

*Casuarina equisetifolia*

*Betresia purpurina*

*Mimosa paniculata*

*Cordia alliodora*

*Acacia greggiana*

*Chrysobalanus*

*Alpinia purpurata*

*Chromolaena*

*Palms*

*Nyctaginia*

*Vernonia cinerea*

*Rhoeo spathacea*

*Anthurium*

*Ficus benjamina*?

*Leucaena*

*Cycas*

*Passiflora*

*Polyscias guilfoylei* (high under)

*Coccoloba uvifera*

*Cocos nucifera*

*Polypodium*

Fig. 1)

Culebra Island - largely  
deserted. so far as can  
be seen from distance.

Small islets to east of it  
green wooded shape very irregular

3:57

~~St. John~~, satellite  
green, mostly wooded.

(cloudy)

~~St. John~~ & St. John  
generally wooded, almost

no flat ground.

Reefs very narrow,  
mostly in bay  
shape extremely  
irregular.

Spurs truncated,  
with low sea cliffs.  
these mostly low.

A similar large island  
immediately beyond  
a chain of small  
islands extends  
far to east.

These all seem to have low  
sea cliffs. Reefs not prominent.  
5:00 lighted 2 high islands  
far to the left

Larger on in Dominica.  
5:17 Martinique - completely  
cloud-covered except a  
small hole or two through  
the clouds - slopes of  
Mont Pelée largely grassy  
forested ravines, clearings  
& ledges -

Back of city <sup>in bay</sup> is mainly cultivated land.  
some mangroves at head of bay.  
A number of villages, small  
apphalt air strip.  
Southward land becomes  
more intensively cultivated -  
plots small and irregular.



separated by hedges - very few small bits of forest. houses numerous.

523

Another small bay, just before south end of island.

Several lagoons at south end some barrier islands and reefs, but not well developed.

526

Another island to left, but not very visible.

(All houses) - no detail visible except very irregular outlines.

543

North point of Barbados on left.

Too dark to see much.

Sloping plateau with sharp, deep ravines. Many small villages. Land almost completely cultivated. Close networks of roads.

Development all along south coast. Sea strip on east side.

747

(847)

Lights of Tobago on left.



July 2 - University Farm,

Champs Fleurs, St. George Co

~~weed in cultivated pasture~~  
 42513 *Cleome rutidosperma*  
 1 in cultivated plot.

1 14 *Microtes debilis*

2 15 *Voanzyia subterranea*  
 weed in edge of pasture  
 planted in museum plot

*Aripo savanna.*  
 July 3 - just north of Cumuto,  
 south east of Arima, St.  
 in open wet savanna  
 on gray silt.

2 16 *Chrysobalanus icaco*  
 common, scattered

1 17 *Apernococe capitata*  
 common on roadside

1 18 *Lauvageria*  
 common

1 19 (sub) *Perama hirsuta* Aubl.  
 common

1 20 *Spiranthes*  
 occasional, isolated

2 21 *Rhynchospora barbata*  
 abundant

2 22 *Ctenium*  
 very common

in edge of island of tricket  
 in wet savanna, on silt

1 23 *Cassytha filiformis* L.  
 occasional

1 24 *Scleria bracteata* Cav. det. Strong 1980  
 abundant

To 11. 23

~~flower~~ buds white.

flowers white.

35 m.  
 Andrew Co.

shrub 1 m. tall,  
 flowers white.

erect, flowers white.

stems depressed to ascending,  
 flowers pinkish white.  
 erect, flowers yellow.

erect, flowers white.

tufted

loose tufts.

stems greenish, turning  
 yellow. flowers white, fruit greenish.  
 tangled scabrous vine



July 3 - trip to ~~Asipito savanna~~  
 lowland vegetation is  
 a tangled forest with a  
 large component of *galang*  
 sp. crops. Locally *Panicum*  
 is dominant. Cecropia  
 frequent. Bamboo persists  
 from commercial plantation.

Large open area near Arima  
 is old U.S. airbase. Mainly  
 grassy (*Andropogon* sp.) but  
 with scattered trees  
 and thickets of various  
 sizes.

Notes

Asipito savanna (3-4 hrs.)

Open area of thin  
 grass on wet very fine sand  
 or silt, grayish pink in  
 upper 1-2 dm, then 1 dm  
 gray, then mottled with  
 red, the red banding  
 in nodules & concretions, the  
~~sand~~ 4-6 ft underlain  
 by gley. The mottling  
 will harden to brick-like  
 concretions when exposed  
 to air.

Scattered shrubs  
 on a thin low grass largely  
*Rhynchospora* and  
*Cyperium*, *Paspalum*, to

A patch of tall  
 thicket in the savanna  
 is on ground perhaps a  
 few inches higher, a  
 soft gray silt that  
 seems to be cradled  
 into polygons by  
 cracks at couple of  
 inches or more wide.  
 Polygons hexagonal  
 like. On this is a  
 growth of *Marrubium*  
 mixed with tall &  
 short trees of various  
 broad leaved sorts.

Undergrowth of *Bocconia*  
 and various shrubs.

Edge is a band of  
*Scleria* sp. an awful  
 saw-grass type, climbing  
 through shrubs, on  
 the ground is a rather  
 luxuriant glabrous  
*Coccoloba*.



## Road s.e. of Valencia

Swamp forest, with broad channels and hummocks, flooded part of year, but not at present. Soil a gray silt, underlain

This forest is largely palms of several sorts, Myristicaceae, and various other broad-leaf trees. Undergrowth 3-5 m. tall of shrubs, small palms, etc. shrub layer 1 m or more high of young palms.

Little vegetation in channels, mostly on hummocks.

An enormous sedge common, as well as a small one. Leaves of the large one almost Pandanus like 2-3 cm or more wide, up to 3 m or more long, stent.

Lesmonchus occasional.

Ants not very common.

Diurnal fairly common, some epiphytes. - bromeliads - lichens



42525 *Coccoloba*  
abundant on ground

26

July 3 - just east of Valencia  
St. Andrew Co.

30 m.

in swamp forest with many palms  
1 26 *Palicourea*  
along narrow road

2 27 *Spermacoce*  
along narrow road

2 28 *Cyperus?*  
common on large hummocks

2 29 *Heisteria pumila*  
abundant on trunks of *Miconia* valm.

3 30 *Cephaelis tomentosa* Willd.  
common along road

2 31 *Palicourea*  
occasional along road

2 32 *Lacistema*  
rare along road

1 33 *Calliandra guildingii* Benth.  
occasional along road

3 34 *Isertia parviflora* Vahl  
occasional along road

2 35 *Palicourea*  
occasional along road

decumbent to ascending,  
flowers purplish,  
fruit bright blue.

low shrub, thyrses  
red; corolla dull magenta,  
erect; corolla white.

1 m. tall; bracts  
scarlet, flowers pale yellow.  
shrub 0.8 m tall,  
flowers whitish,  
thyrses green, turning  
bright purple in fruit.  
slender tree 4 m. tall;  
fruit maroon.

shrub, stem  
light red.

shrub 3 m. tall; corolla  
pale pink, tube darker.  
shrub 2.5 m. tall;  
thyrses green, fruit  
black when ripe.



July 11 - ~~Las Lajas Rd.~~  
Blanchusseuse Pass.

Ridge top forest  
locally fairly undisturbed.  
Trees 20-25 m. tall up to  
5 dm dbh. mostly 2.5-3.5 dm.  
Canopy almost complete,  
rather uneven, no  
second tree layer.  
A shrub layer 2-4 m  
fairly well developed,  
a lower one 1-2 m. also  
2-4 m layer largely geonoms  
palms, some broadleaf  
dicots.

1-2 m. layer gingerbread,  
tree ferns, palms, <sup>unbranched</sup>  
Heliconia, Marantaceae,  
some dicots, Chusquea.  
On ground a rather  
sparse cover of seedlings  
or ferns, etc.

Many lianas on  
tree trunks - aroids  
Alchornea, Manisotia,  
some dicots.

Many epiphytes -  
orchids, ferns, bromeliads  
on trunks, branches, leaves.

On top of ridge, and  
highest peak, a clearing,  
and around this some  
disturbed, apparently

1300 -  
road

previously cleared  
area. Clearing mainly  
extending down the  
south slope rather than  
the north. Disturbed  
area thickly grown  
with Chusquea, with  
a few trees.

The valley up which  
the road goes, on the  
south slope of the  
range is almost  
entirely cacao plantation  
with some native  
trees as shade. Only  
near the top is there  
any native forest. This  
is real montane  
rain forest.

On the opposite side,  
except for a little cacao  
and coffee right near  
the top, the forest goes  
down to a fairly  
low altitude - but with  
the larger trees fairly  
well logged out. *Waypoinia*  
is abundant.

At low altitude coconut  
is dominant, all along  
the coast westward to  
Chubasco Point, at least.



strand plants  
*Wedelia triloba*  
*Paspalum distichum*  
*Coccoloba uvifera*  
*Cordia* sp.  
*Bidens radiata*  
*Fernandina catappa*  
*Cyperus* sp.  
*Scaevola plumieri*  
*Bromelia*  
*Clusia rosea*  
 Sapot.  
 Ficus of *ampelophora*

July 4 - Point Chupara,  
 west of Blanchisseuse, St.

42536 *Pithecairnia*

1 abundant on rocky  
 bluffs above sea beach

July 4 - Blanchisseuse Pass,  
 Northern Range west of  
 Morne Bleu, St. George Co  
 in montane rain forest  
 on ridge top.

3 37 *Cephaelis*  
 occasional

3 38 fern  
 epiphytic on tree trunks

2 39 *Adiantum*  
 common, terrestrial

sand flat back of  
 beach - planted  
 to coconuts, but they  
 mostly young.  
*Wedelia* and *Paspalum*  
 dominant - few patches  
 of *Coccoloba*.

On rocky bluff - *Pithecairnia*,  
*Wedelia*, *Clusia*, *Heliconia*,  
*Utricularia*, *Cathartes*, *Ficus*

4 m  
 George Co.

flowers scarlet.

500 m

shrub, 1 m tall; flowers  
 white, fruit purple.  
 - bracts white.  
 climbing, rhizome close to bark  
 - of tree  
 rhizome creeping, young  
 broad trunk.



42540 sedge  
2 common

2 41 fern  
common

3 42 *Cephaelis*  
occasional

July 5 - Caroni Swamp  
along old canal in  
~~the~~ Rhizophora swamp

3 43 *Rhizophora*  
abundant

2 44 *Rhizophora*  
abundant

2 45 *Rhizophora*  
~~common~~ abundant

2 46 *Rhizophora*  
abundant

1 47 *Laguncularia racemosa*  
common, especially  
toward head of canal

1 48 *Rhizophora*  
abundant

1 49 *Cyperus articulatus*  
locally abundant in  
open marshes

1 50 *Digitaria*  
occasional on <sup>muddy</sup> fill  
near bridge

scapes erect.

shrub 1.5 m tall,  
fruits lavender.

0 m.  
Caroni Co.

tree 5 m tall; flower  
pale yellow, 2-4 m an  
inflorescence.

small tree, buds green.

small tree, ~~flowers~~  
buds pale yellow.

small tree; flowers  
pale yellow.

shrub 2 m tall;  
corolla white.

small tree; buds green.

erect, ~~branched~~  
several stems from base



July 5 - Caroni Swamp  
trip by boat

Inland end of canal -  
Rhizophora mangroves, Laguncularia  
racemosa, Avicennia

Cyperus liquidus  
Scleria reticularis  
Paspalum distichum in  
Tremasys or mud a few  
dm above water level -

Avicennia more common  
in these flats than along  
channel

several vines in openings

Aerial roots on Rhizophora  
hanging even from higher  
branches but most abundant  
just above high tide level.

Westward Rhizophora  
becomes completely dominant  
along channel.

Well toward west the  
general height of the trees  
is 6-10 m., mostly Rhizophora  
slender, max. 10 cm dbh. mostly  
much less. Trees perhaps smaller  
on north side.

Large flocks of scarlet ibis  
(not departing of red K.?)

finds a few other kinds  
of birds.

Off to south of canal  
are large areas of open water,  
with islands and borders  
of mangroves.

Going landward the  
proportion of Avicennia  
and Laguncularia steadily  
increases.

One type of Rhizophora,  
rather uncommon ~~is~~ has  
red radicles

Large area of marsh  
on south side toward head  
of canal.



July 4 - trail up Mt.

El Tucuche

Lower part through  
Cacao plantations

Main ridge, from saddle  
west to El Tucuche

Slope, just west of saddle,  
covered with montane  
rain forest up to 25 m (80')  
trunks to 4 (5) dm dbh.

Canopy uneven, more  
or less closed, layering  
not very distinct.

Various intermediate  
sized saplings & small  
trees, a few small palms.  
Shrub layer to 1-2 m  
prominent. On ground  
*Adiantum* common on  
ground. much bare  
ground, covered by leaf  
sedges, seedlings,  
bromeliads on ground.  
~~with~~ liana, (aroid)  
common. *Mangrovia*  
leaf litter, but up  
to at least 45" deep.

Measured 2 places -  
27" x 45" to bedrock.

Slender *Cyathus* occ.

Trees of 1 dm + about  
2-5 m. apart.

*Wahlbergia aphylla*  
saprophytic orchid  
beside the path.



going up the mountain the forest the spacing becomes closer, the stature lower. The ground layer and the shrub layer become very dense. Epiphytes become more abundant.

Finally, on the ridge there is a dense scrub about 2-3 m tall.

Summit is a clean grassy spot, with such weeds as *Saururus*, *Borreria*, etc.

In the ridge-top scrub or elfin forest *Melastomaceae* are abundant, *Vicinia*, *Tournefortia*.

Tallest trees perhaps 6 m tall, general average perhaps half that, rapidly becoming more on west slope, lower on east slope.

Cleared banks and sides of trail covered by abundant *Polypodium* (also shown in forest below along trail).

Bromeliads, ferns, epiphytes and terrestrial, <sup>some small epiphytes</sup> and orchids with

great leaves, climbing on trees, all very common. The whole a tangled mass with *Chusquea*, small palms, occasional emergent trees, some *Sclera*.

On the east slope a tangled mat, 1-2 m deep, of *Glacium*, etc. with occasional emergent palms and other small trees.

In forest a dense undergrowth of *Cycanthaceae* and a palm that looks like *Carludovicia*, with shrubs of *Panicum*, etc.

On west slope just below summit ridge trees are larger, well bedecked with *Bromeliads*, *Clusia*, etc. *Clethra* grows to tree size.



July 7 - South slope  
of El Tucuche, St. George Co.  
in montane rain forest

- #2551 *Grammitis serrulata*  
on roots of tree along trail
- 2 52 *Psychotria uliginosa* Sw. det. Kl. 1977  
occasional
- 5 53 *Trichomanes Hymenophyllum*  
on bank above trail
- 1 54 *Trichomanes ~~trichomanes~~ ~~trichomanes~~ det.*  
on bank above trail
- 1 55 *Alchemilla Telioctachya alopecuroides*  
along trail (Vahl) Nees

July 7 - main ridge  
of northern range just  
east of El Tucuche  
(ind. 42553-5) St. George Co.  
in montane rain forest.

- 2 56 (ridge)  
on ~~open~~ open bank along trail
- 3 57 *Trichomanes trigonum* Desv. var.  
on bank along trail
- 1 58 *Hymenophyllum*  
on tree root along trail
- 1 59 *Grammitis serrulata*  
on tree root along trail
- 1 60 *Wohlschlegelia aphylla*  
rare on bank with humus  
along trail
- 2 61 *Boreria oeymoides*  
common along trail
- 1 62 *Marsippospora subcaulis* (Griseb.) Urb.  
common on wet cliffs

*serrulata*

erect, unbranched  
shrub 1 m. tall, fruit red.  
*hirsutum* (L.) Sw.

det. Kl. 1977

det. D. Wasshausen

950 m.  
1000 m.

*limbiatum* (Bachh.) Proctor

white

flowers white

leaves appressed to ~~the~~  
rocks, flowers lavender.



- 42563 *Trichomanes pinnatum*  
 7 abundant in mossy banks  
 1 44 *Trichomanes crispum* L.  
 common on rock  
 2 65 *Coccyzium*

July 7 - summit ridge  
 of El Tuche, V. George Co.

in wet dwarfed ridge

- 1 66 *Tournefortia eggertiana*  
 occasional *eggertiana*

- 67 *Tournefortia eggertiana*  
 occasional

~~2 68 *Bursera verticillata*~~

- 1 68 *Grammitis* ["*Xiphopteris*"] *taenifolia*  
 on base of tree trunk

- 1 69 *Utricularia alpina* Jacq.

- 2 70 *Nepenthes rivularis* (Vahl) Mett. ex Krug  
*cordifolia*  
 epiphytic on tree trunk  
 (others terrestrial)

- 3 71 *Clethra baldwiniana*

1 71a occasional

- 2 72 *Oblanda trinitensis* Maxon det G.R.P.  
 rare, on tree trunks

- 2 73 *Vismia*  
 occasional

same - grassy summit

- 1 74 *Trimezia martiniquensis*  
 occasional

- 2 75 *Bursera verticillata*  
 common

Hedw.

FRONDS

fronds erect.

1000 m.

of scrub

small tree; fruits  
 pendulous, fleshy,  
 black when ripe.

small tree, staminate

(Jerm.) Proctor

tubers translucent,  
 flowers white,  
 shading to pale yellow  
 within.  
 fronds erect

small tree (others to 20 m.)

Chusquea  
 along trail, climbing

1000 m.

flowers yellow

erect; flowers white.



July 7 - Trail from Maracas  
to top of Northern Range  
along trail in cacao  
plantation

- 42576 *Phyllanthus*  
common
- 77 *Wedelia*  
rare
- 78 *Borreria laevis* (Lam.) Griseb.  
common
- 79 *Chelypteris dentata* (Forsk.) E.  
very local
- 80 ~~common~~  
occasional, edge of clearing
- 81 *Scleria*  
edge of clearing
- 82 *Polypodium astrolepis* Liebm.  
epiphytic on cacao branches
- 83 *Polypodium polypodioides*  
common, epiphytic on cacao  
branches
- 83E *Peperomia*  
epiphytic on cacao branches  
July 7 - trail about 1 mile  
below Maracas Falls, at  
roadside
- 84 *Borreria laevis* (Lam.) Griseb.  
common
- 85 *Phyllanthus*  
common

H. George Co.  
125 m.

radix (branchlet) notably  
thick.  
flowers yellow

flowers white, corolla  
lobes pubescent within.  
fronds erect.

St. J.  
serrated

det. *Peperomia rotundifolia* (L.) Kunth <sup>(Ger)</sup> Guido Mathieu  
Nov 2005

100 m.  
George Co

flowers white; corolla  
lobes pubescent within.  
erect, unbranched, to 0.8 m,  
flowers reddish.



July 8 - Aripo savanna  
 (finished roll 62-1) (prob. a  
 bit overexposed)

A large area of savanna  
 with very few woody  
 plants, showing  
 much evidence of  
 burning. In most  
 parts there are mounds  
 of gray silt about the  
 size of gopher mounds.  
 Very compact. Will  
 support one's weight.  
 The channels between  
 them are wet and  
 oozy. They give the impres-  
 sion that there is a water-  
 filled cavity beneath them  
 as water oozes from several  
 places along the channel  
 when it is stepped on.

The woody vegetation  
 around the savanna  
 and in islands in it  
 shows dead places around  
 the edges, a plant that  
 are partly dead, doubtless  
 resulting from recent fires.

Forest around savanna  
 has a strong component of  
 palms, both in canopy  
 layer and in undergrowth.  
 Canopy very irregular and

Mounds  
 apparently  
 composed  
 of fine  
 trunks  
 bleached  
 at base

incomplete, there are few  
 large trees and trails are  
 open into the forest.

Undergrowth of palm  
 seedlings, small palms, large  
 sedges, Melastomaceae, rubiacae,  
 other broadleaf shrubs and  
 saplings. In some parts  
 trees with still roots,  
 probably mostly *Clusia*, are  
 common. Many lianas.  
 Ground is rather hummocky  
 but not as much so as  
 in forest examined on July 8.  
 Edges almost impenetrable,  
 farther in much more  
 open. Spacing averages perhaps  
 5 or more meters.

In savanna itself there  
 very few woody plants.  
 Both phytosquamous and  
 composition variable.

Traces of fire very obvious in  
 savanna. Clumps of sedge burn  
 to base, sending up tufts of leaves.

Flora on mounds differs significantly  
 on mounds and in channels. Lycopodium  
 on mounds.

In the area studied on July 2  
 the channels make up a  
 coarse network, mostly  
 trending in one direction.  
 In places a partly broken down  
 tubular burrow is evident.  
 Channels marked by denser vegetation



July 8 - The fore-hills of the Northern range are fairly clear on the western half, more and more wooded eastward.

Probably these hills are too dry for cocoa planting, they are said to be burned each year.

July 7 Large areas at the base of the Northern Range are in pasture and miscellaneous cult. The central part of the plain is a vast area of sugar cane with a few scattered trees, rows along secondary roads, etc.

East of this an area of coconut plantation - rather sparse, much replanting.

Then open country, some pasture, some sugar cane. (probably all in cane at one time or other.)

Then, suddenly, just before m.p. 12, the flat country becomes wooded. Some open areas in it. In places predominantly open. Much bamboo. *Pennisetum* common. Bamboo said to be spontaneous

From a mile or so before Curruca Rd. the landscape is a mosaic of savanna (or at least open cleared land) and thickets and patches of poor forest, patches of bamboo, etc.

*Cecropia*, *Lagerstroemia*, *Pennisetum*, *Inga* (?) common. Guava.

The eastern half of the Northern Range appears to be wooded to base.

Beyond Valencia local plantations of *Colophyllum* sp. but mostly a ragged secondary forest, ~~poor~~ palms abundant, locally dominant. few large trees left. Gradual change to thickets, considerable clearing, some areas still rather densely wooded.

Langui Grande. Fair sized city. Beyond - some citrus orchards.



July 8 - ~~Swamp~~ just south  
east of Valencia, St. Andrew Co.  
in swamp forest

- 42586 *Heliconia*  
occasional in undergrowth  
especially at edges of forest
- 2 87 ~~(sub) *Malanea*~~ *Amaurum corymbosum* HBK.  
Amaurum
- 2 88 *Vlex*
- 3 89 *Mapania?*  
common on hummocks
- 1 90 ~~*Malanea*~~ *Amaurum corymbosum* HBK.  
occasional
- 1 91 *Hirtella*  
rare
- 4 92 ~~from~~ *Oleandra articulata* (Sw.) Presl (1 to Presl)  
very local

July 8 - Aripo Savanna  
St. Andrew Co.

open wet grassland  
on gray silt soil.

- 4 93 *Thonina*  
in low grassy wet places
- 1 94 *Sprengelia*  
occasional in moist places
- 2 95 *Aeschynomene* *sensitiva* Sw.  
occasional in wet places
- 2 96 *Sauvagesia*  
common

30 m.

climbing extensively  
branched; dangerous "saw-grass"  
fruit reddish black  
flowers white.

sect.

slender shrub  
flowers white.  
tall slender shrub,  
racemes pendent,  
flowers blue-lavender,  
stamens maroon.  
epiphytic, rhizome <sup>woody</sup>  
~~type~~ climbing on <sup>tree</sup> trunk.

35 m.

flowers yellow with  
dark red-brown markings  
roots very <sup>spongy</sup>  
petals white



- 42597 *Buchnera*  
occasional
- 3 98 *Rhynchospora*  
occasional
- 2 99 *Cladium?*  
abundant (mostly not flowering)
- 42600 ~~abundant~~ *Juncus*  
abundant, especially  
in shallow pools.
- 3 01 *Panicum*  
generally abundant
- 1 02 *Polygala aegyptiaca* Benth. ?  
occasional
- 1 03 *Lycopodium carolinianum*  
occasional, in silt  
mounds formed by earthworm castings
- 3 04 *Paspalum*  
abundant generally
- 2 05 *Panicum millegrana*  
common
- 2 06 *Rhynchospora*  
occasional
- 1 07 *Polygala timontou* Aubl. ?  
rare, in edge of small pool
- 1 08 *Utricularia*  
common in dense grass.
- 1 09 *Utricularia*  
common in dense grass
- 2 10 *Drosera capillaris* Poir. Peit.  
abundant on bare mud  
and in water
- 11 *Xyris*  
common locally in thick grass

leaves purple beneath;  
- corolla rose pink.  
culm erect, head white.

culm erect

plant purplish,  
- flowers rose purple.  
stems brittle, closely  
appressed to soil,  
leaves mostly on ~~the~~ <sup>upper</sup>  
side of stem. (sterile)  
leaves and culms erect.

culms decumbent to  
- ascending.  
culms erect, solitary.

plant purple, flowers  
- purplish green  
flowers white with  
yellow median mark  
on palate.  
- flowers bluish with  
yellow median mark on palate.  
plant reddish, flowers white.

flowers yellow.



42612 *Dioidia*  
rare in dense grass

July 9 - Arena Forest Reserve,  
about 2 miles west of Cumuto

2 13 *Paspalum longisetum*  
abundant on wide  
shaded path in forest

3 14 *Pisonia eggensiana* Heimerl  
rare

2 15 *Trema micrantha* (L.) Bl.  
in cleared area in forest

4 16 *Ryania speciosa*  
occasional in  
thinned forest

3 17 *Spermacoce*  
common along trail

July 9 - 4 miles northeast of  
Langre Grande, St. Andrew Co.  
in dense high rain-forest  
dominated by *Mora*

1 18 *Schizaea elegans* (Vahl) Sw.  
infrequent on forest floor

3 19 *Jussiaea foliolobata* Murray  
locally abundant in  
disturbed muddy place  
along logging road

3 20 *Palicourea*  
in semi-open place  
along logging road

erect, flowers white.

35 m.  
St. Andrew Co.

slender shrub 2 m. tall,  
limb of perianth reddish.  
slender shrub 2.5 m.  
tall.

slender shrub 3  
m. tall.

10  
St. Andrew Co.

shrub 1.5 - 2 m. tall,  
petals yellow, notably  
clawed.

shrub 1.5 m. tall,  
thyrse scarlet.



1 mi. n.e. of Tangre Grants  
 Beyond Dropwells R.  
 some tall forest - Mora.  
 Palms not abundant.  
 Mora trees reach 150' tall.  
 3-4' dbh.  
 A few interys.  
 Beyond this ~~the~~ forest  
 been destroyed - clear cut.

Mora forest - partly  
 logged.

Larger trees - with  
 very conspicuous  
 buttresses up to 4-5 m.  
 high. Apparently the  
 entire canopy layer  
 at 30-40 m. is Mora.

Scattered second story  
 trees of several species.  
 then an almost pure  
 layer from 0.5 to 3 m. <sup>(5-10 m)</sup>  
 of Mora seedlings. a few  
 scattered palm seedlings.  
 Marantaceae locally  
 common <sup>or abundant</sup> on ground.

Locally a few sedges  
 (*Hypolytrum?*). Really  
 large trees 40-100 m. apart.  
 those over 1 dm. 3-10 m.  
 apart.

(photos on 62-2 after  
 savanna)

great mounds of  
 litter against the  
 bases of trees, between  
 the buttresses.

Surface of ground  
 irregular, with  
 pits and some hummocks.  
 Litter on higher parts  
 only a few cm. thick on  
 gray soil. In pits to  
 1 dm. on gray soil.

Large Moras loaded  
 with aroids, a high  
 crochets, also *Siphanium*.

*Clusia*, *Ficus* (?) sending  
 large roots down, aroids  
 sending masses of small  
 roots. (photo)

Very few tree lianas  
 but occasional enormous  
 ones (photo)

Very few ferns on  
 ground even less as  
 epiphytes. Lichens &  
 hepatics, then but abundant  
 on tree trunks. Mosses  
 less common. Some leaf  
 epiphytes on older  
 shrubs.

Locally the shrub layer,  
 mostly Mora seedlings,  
 some other shrubs. (photos  
 sub. 62-1)



In undisturbed  
Mara forest, (area forested)  
the Mara would be  
even more dominant  
and undergrowth  
thinner.

Here the canopy is  
not quite complete  
and the thinner it  
is the denser the shrub  
layer.

The pits called "hog  
wallows" are not very  
satisfactorily accounted  
for, though they blame  
burrowing by earthworms.

The soil is a fine  
gray sand, quite deep.

Mara said to  
be deep water.

Some bromeliads  
locally on banks.

July 8 - Arena Reserve  
2 mi. W of Cumuto.

Forest being thinned  
to a shelterwood, 20-30  
medium trees per acre,  
to promote natural  
regeneration.

Part of the is 20 year  
old. 25 m tall, tree to  
20-25 cm dbh. A very  
dense understorey 5-7 m  
tall. Canopy not closed  
where no thinning has  
been done the canopy is  
almost closed but  
trees mostly about 8-15 cm dbh.

July 12 Bugand Hill

weeds in Cecropia  
plantation:  
Panicum  
Bidens  
Guzalaguaria.

Clearing to establish  
Teak - best time in  
December  
also for other types  
of planting

3 photos of young Teak clearing  
not shown



1962 Trinidad

Mr Harris area.

Teak is bare from ~~March~~ through ~~April~~ May  
4 months without leave.  
length depends on dryness

Teak shades almost everything out - ground is bare. This is perpetuated by annual burning - this not deliberate but accidental. Sheet erosion here is conspicuous - columns of earth 2-3 (said to be as much as 6) inches high when protected by a stick or even a leaf.

A few teak seedlings here and there also clumps of stump sprouts from thinning. But this seems not very effective.

Some natural shelterwood regeneration in wet areas.

9 years old about 10-15 m tall 15-20 cm dbh.

very clear poles. this on sandy soils, teak on clay. Teak does not do well on sand.

Brickfields (Brother Road) in Central Range Reserve (bit 30000 acres of teak)

A nature reserve of 140 acres around rest house (Agouti - Mouse faciation) Another nature reserve near Hangman's Corner on sandy ground.

Ornamentals & other plants

*Pittosporum bungeanum*  
*Cycas circinalis*  
*Cordia alliodora*  
*Theobroma cacao*  
*Citrus sinensis*  
*Zea mays*  
*Coffea robusta*  
*Antocarpus altalis*  
*Ficus religiosa indica*  
*F. religiosa*  
*Passiflora casei*  
*Cordia alliodora*  
*Morinda citrifolia*  
*Musa sapientum*  
*Albizia julibrissin*  
*Chrysanthemum indicum*  
*Lantana camara*  
*Mangifera indica*  
*Bambusa arundinacea* (var. *gambusa*)  
*Polypodium scolopendria*  
*Carica papaya*  
*Saccharum officinarum*



*Ipomoea fistulosa*  
*Coccoloba nucifera*  
*Terminalia catappa*  
*Euphorbia truncata*  
*Anacardium occidentale*  
*Hymenocallis latifolia*  
*Antigonon*  
*Allamanda*  
*Zinnia elegans*  
*Caesalpinia pulcherrima*  
*Dalmanea regia*  
*Nerium indicum*  
*Mirabilis jalapa*  
*Sida acuta*  
*Roystonia oleracea*  
*Araucaria cunninghamii*  
*Choea spathulata*  
*Thunbergia grandiflora*  
*Zostera grandis*  
*Roystonia oleracea*  
*Catharanthus roseus*  
*Odontadenia grandiflora*  
*Cordia alliodora*  
*Caryota urens*

*Ixora williamsonii* - described  
~~from~~ and illustrated from  
 material sent from Trinidad  
 by Purseglove to Sandwith  
 pub in 1960 Curtis Bot. Mag.

*Ixora coccinea*  
*Ixora chinensis*

July 11 - air trip Trinidad  
 Barbados, Antigua, San Juan, Kingston  
 (Viscount, left side)

E. of Paramaribo a block of sugar  
 cane, patches of pasture,  
 but mostly secondary  
 forest, with perhaps  
 10% pasture, a network  
 of roads. This forest  
 extends far to the south.  
 Curmuts airport site largely  
 open, grassy, but some  
 roads in bushy woods.

Slope of mountain  
 up from Curmuts are  
 solidly wooded, no  
 clearing or shifting  
 agriculture at all.

No apparent dwarfing  
 of forest on crests  
 and summit. This  
 forest would repay  
 investigation.

N. E. coast is wooded  
 to the beach. A very few  
 clearings on one or two  
 lower ridges and a village  
 on one point - undoubtedly  
 Matelot.

Tobacco in distance and  
 clouds in night



July 10 - Mt. Harris Forest Reserve

- 42621 (~~42621~~) *Acnistus arborescens* (L.) Schlegel  
 2 common in edge of forest
- 1 22 *Fevillea cordifolia* L.  
 edge of forest
- 1 23 *Pentaclethra macroloba* (Willd.) Ktze.  
 common in second story of forest
- 3 24 *Euphorbia glomerifera*  
 common on bare soil beside road
- 2 25 *Bidens ~~radicata~~ leucanthus* Willd.  
 common in weedy roadside in forest.
- 2 26 *Wedelia fruticosa* Jacq.  
 common in opening on hill in forest planting
- 4 27 *Gonzalagunia*

July 10 - St. Augustine  
 St. George Co.

- 4 28 *Ixora caiei* Hance  
 cultivated in garden

shrub; fruit yellow.  
 plant aromatic.

vine; flowers dull yellow.

tree 10 m. tall; ~~flowers~~ filaments white.

plant, arching;  
 glands white.  
 rays white.

scrambling extensive  
 herb; flowers yellow

shrub 1-2 m tall,  
 leaves with impressed  
 veins above; flowers  
 white, fruit light blue.

shrub 2 m tall;  
 flowers scarlet; fruit  
 black when ripe. From  
 same clone as type of  
*Ixora williamsii* Hance.



Barbados has low sea-cliffs and a rather wide fringing reef on the southeast coast, becoming lower and lower seaward, underneath them.

Plants seen -

*Saccharum officinarum*  
*Casuarina equisetifolia*  
*Delonix regia*  
*Cocos nucifera*  
*Lantana yellowiana*  
*Cordyline fruticosa*  
*Buddleia* (white, large, common  
 than Asiatics)

*Nephrolepis brenata* var. *furcata*  
*Acalypha wilkesiana*  
*Catharanthus roseus*  
*Petrea volubilis*  
*Euphorbia pulcherrima*  
*Philodendron* (large, sapling  
 cut leaf)  
*Clusia* & *Egeria densa*  
*Nerium oleander*  
*Agave americana*  
*Terminalia catappa*  
*Pilea microphylla*

Small escarpments bounding terraces have a bit of natural woody vegetation. The sea cliffs have <sup>more</sup> ~~more~~ swept back of beaches.

Soil near airport black.

A little gallery scrub along bottoms of ravine, their sides and in places a little adjacent land grassy. Interior

scraps also grassy.

Soil in interior and toward west - mostly dark red to chocolate.

Dissected ground on west side mostly cultivated in gardens, except where eroded down to rock. One patch of woods left here. Land immediately around villages and dwellings in gardens, the remainder almost entirely in cane. Scattered trees. Some taxanes obviously planted.

Marie-Galante - s.w. corner. Secondary scrub and cultivation. N.w. corner forest back of beach and a large grassy area behind that then mosaic of large patches of scrub and of cultivated patchwork.

Guadeloupe, <sup>s.w. peninsula,</sup> in distance to left. Mostly cloudy. Fringing reef on east side of pen. Passed over east peninsula - small mosaic of cult. fields, patches of scrub or woods, and grass. City on west coast, air strip behind it. Sugar plantation



in isthmus. Bay to north  
appears to have a mostly  
submerged barrier with  
recessed numerous tiny  
islets, extending northward  
along coast of north peninsula  
as a barrier reef with  
only one inlet deep lagoon  
with some hoist and one  
or two cays in it.

North peninsula largely  
grass (or cane) on lower east  
slopes. Visibility poor.

Antigua - <sup>west side</sup> mountainous,  
mostly thin scrub to grass,  
denser wood in ravines.  
Cultivation east of mountains,  
some grass, patches of scrub  
especially in ravines. Cave  
on flat ground and gentler  
slopes.

Plants -

*Saccharum*  
*Pelonia*  
*Leucaena leucocephala*  
*Cela microphylla*  
*Azadirachta indica*  
*Hibiscus rosa-sinensis*  
*Phoenix canariensis*  
*Chloris inflexa*  
*Rhacopilum*

*Allamanda cathartica*  
*Sida acuta*  
*Cynodon dactylon*  
Vegetation in area of  
airport has a slightly  
xerophytic character, mostly  
rather thin scrub, some  
cultivation.

Wide, mostly rather  
deeply submerged reef  
of southeast coast, forms  
a barrier reef off east  
coast.

St. Kitts - <sup>(to north?)</sup> mostly  
lower east  
and north slopes cultivated  
or in pasture - wood only  
in radiating ravines.  
Low sea cliffs. Center  
apparently wooded  
but mostly in clouds.

Two grassy islets, then  
a corner of St. Thomas (wooded)  
and a small irregular  
scrub-covered island. A rather  
bar rock in distance to left.

Some small islands  
in distance to left and  
a very large one ahead,  
probably Puerto Rico. Two  
lagoons on east peninsula  
prob. Cape San Juan. A belt



of forest <sup>coconut plantation</sup> along coast to west, sugar cane inland on gentle slopes. A large canal running inland. More coconut plantation with scrub behind it and then a large pond and mangrove swamp with much open water, coconuts along beach and back of it.

Then a rather muddy looking reef running across a shallow bay to San Juan. Better reef just in front of east part of city. Large lagoon with mangrove swamp between city and airport.

### San Juan

*Molluscus leucodendron*  
*Asparagus sprengeri*

Part way west on the Puerto Rican coast is a large area of typical karst. The hills are densely wooded. Every square foot of the flat ground between them is cultivated or in grass. Through the woods

a broad flat stream valley with an interrupted stream meandering through it.

The karst forms a definite broad belt parallel with and almost contiguous with the base of the mountains. The density varies greatly. In places there is no flat ground.

Then another stream valley cuts across it with a meandering stream.

The soil of the flat intervals is a brownish red.

The karst becomes more irregular westward, but parts are dense, in fact, large areas are quite dense.

A fairly dense area extends well west of any central mountain at all. South of it is country with rather low relief. Too cloudy to see much of it. North of the karst is a flat place completely planted to sugar cane or in pasture. This exactly



This plain abruptly narrows near the west tip of the island but a suggestion of the tract goes almost to the tip.

is somewhat west a small scrubby, high, uncultivated island. Only signs of human activity a small ear rectangle near western tip. Steeper slopes rather thinly vegetated.

*Chrysalydocranus lutescens*  
*Plumonia obtusa*  
*Casuarina obtusifolia*  
*Olea europea*  
*Pithecellobium dulce*  
*Caesalpinia pulcherrima*  
*Terium olander*  
*Conyza tomentosa*  
*Malvaria*  
*Hibiscus schizopetalus*  
*Eugenia jambosa*  
*Bignonia sapida*  
*Bambusa*  
*Gealyptha hispida*  
*Piper aduncum*  
*Hibiscus rose-sinensis*  
*Saccharum officinarum*  
*Aclypha godseffiana*  
*Allamanda cathartica*  
*Ochroma papilionata*

July 12 - ~~Jamaica~~ Kingston

plants seen

*Cassia javanica*  
*C. fistula*  
*Heliconia regia*  
*Antigonon leptopus*  
*Artocarpus altalis*  
*Lagerstroemia indica*  
*Mangifera indica*  
*Cocos nucifera*  
*Pithecharidia pacifica*  
*Sporox fistulosa*  
*Glossaria macrantha*  
*Plumbago auriculata*  
*Quararicum officinale*  
*Calotropis procera*  
*Jamaindus indicus*  
*Petrea volubilis*  
*Crossandra undulata*  
*Lecterasia purpurea*  
*Ficus pumila*  
*Clerodendrum speciosissimum*  
*Holmskioldia sanguinea*  
*Dieffenbachia (white spotted)*  
*Euphorbia pulcherrima*  
*Thunbergia glauca*  
*Cordia sebastena*  
*Pithecellobium unguis-cati*  
*Chrysophyllum carmito*  
*Leucaena leucocephala*  
*Tribulus cistoides*  
*Lecterasia purpurea*  
*Terminalia catappa*  
*Adansonia digitata*



July 12 - trip to Cano River Falls

Long Mt. back of Kingston Harbor - covered by a closed somewhat thorny microphyllous scrub with scattered small trees. Coastal flat, also where not built up, covered by thorn scrub. Prosopis.

Hope River bed is a wide dry gravel wash.

Clark River, also, has a trickle of water.

Rhizophora swamps alternating with Prosopis scrub

Turned up <sup>R.</sup> canyon with steep limestone walls covered by microphyll-scrub. Delonix abundant in bottom.



Cane River falls -  
stream goes down  
a limestone gorge to  
waterfall. Below waterfall  
is a more or less smooth  
walled gorge. The bottom  
of it has almost entirely  
pruned vegetation. A  
scrub on upper parts  
of wall.

Ferns etc. in crevices  
in lower walls.

hard to be up a road of  
water in rainy season

*Catalpa longissima*

*Tecoma stans*

*Ficus* spp.

*Euphorbia lactea* (Wedg.)

Hills bet. Cane R. & Hope R.  
(Mt. Dallas)  
scrub changes to scrub  
forest and forest upward  
higher hills grassy  
(at Kod 7 + begin to 2-3  
across upper Cane R. drainage  
from on slope Dallas Mt)  
*Rhus* *estabianus*

700' -  
750'



July 12 - road to Canal River  
Falls Newstead,

in subserophytic  
scrub on steep limestone slope.

- 42629 *Cordia alliodora* L.  
occasional
- 30 *Morinda* <sup>royoc L.</sup> ~~royoc~~ L.  
occasional
- 31 *Phyllanthus nutans* ~~Sw.~~  
occasional

July 12 - Canyon below  
Canal River Falls  
in deep limestone gorge

- 32 *Boerhaavia diffusa* L.  
occasional along path
- 33 *Phyllanthus* <sup>subulatus Sw.</sup> ~~subulatus~~  
occasional on bare rock ledge
- 34 *Adiantum tenerum* H.  
common in crevices
- 35 (genus) *Hippelia* <sup>compulsa (L.) Walp.</sup> ~~compulsa~~  
common in crevices on cliffs on  
east side, not seen on  
west side.
- 36 *Phyllanthus amarus* L.f. Th.  
occasional along trail
- 37 *Spermocorys suffruticosa* Jacq.  
common in crevices, and on  
talus
- 38 *Euphorbia glomerata* (Mill.)  
common along trail

750-500  
150 m

750-500

150 m

small tree, flowers  
dull greenish ~~white~~  
(flowering out of season)  
slender shrub 2.5 m.  
tall; fruits greenish yellow.  
shrub 1 m tall; flowers  
reddish green.

100 m

*H. diffusa* L. stems decumbent,  
panicles ascending,  
leaves pale beneath.  
erect shrub 0.7 m. tall.  
flowers reddish.

*Andropogon* ~~sp.~~

small shrub; flowers  
bronz-color.

*Boerhaavia diffusa* (L.) Jacq. <sup>sp.</sup>

plant spreading; flowers  
pinkish, closed in afternoon.

Wheeler



42639 *Lycianthes* *limicola* (L.) *califfa* (L.) *quadrifida*  
 2 rare in crevices

1 40 *Cenchrus*

rare along trail

1 41 *Spermacoce* *suffruticosa* Jacq.

rare along trail

1 42 *Emilia* *sonchifolia* (L.) DC.

occasional along trail

2 43 *Cuphea* *alata* (Sw.) Koch

rare in rock crevices

2 44 *Pteris* *longifolia* L.

occasional in rock crevices

July 12 - Cane River Falls  
 on limestone cliffs and boulders

1 45 *Rondeletia* *fulva* Jacq.

occasional

2 46 *Cissus* *trifoliata* *C. vineana* Vahl

common

2 47 *Heliotropium* *angustifolium* Murray

in crevices

2 48 *Muntingia* *calabura* L.

occasional

3 49 *Cissus* *sp. rigida* L.

common

1 50 *Cestrum* *diversum* L.

occasional

small shrub, flowers  
 clear yellow, almost  
 completely regular.  
 erect

*Passiflora* *lutea* (L.) *quadrifida* (L.)

flowers pale purple.

small shrub, flowers  
 reddish.

1515

shrub; flowers dull  
 yellowish.

<sup>vine</sup>  
 vine, flowers red.

sub-shrub, flowers  
 white, minute.

small tree; flowers  
 white.

vine, flowers <sup>very</sup> yellow-  
 green.

shrub; fruit immature.



1962 Jamaica

July 13 - trip from Kingston  
thru CastletonNorth of divide - steep  
slopes, mostly on a purple  
conglomerate - non-calcareous  
on the most part.Very little natural  
vegetation - mostly a  
mosaic of small cult.  
patches, thickets, coconut  
groves, bamboo clumps and  
thickets, brown sites with  
breadfruit, bamboo, etc. Thicketly  
settled area, not shifting  
cultivation. *Cecropia* common.grass  
fallow

Castleton Gardens -

a very well-kept botanical  
garden with a good  
assortment of plants  
and numerous  
individuals of each.

Many good palms.

St. Mary Parish

Wagwater R. - a scarp  
across the end bluff of  
purple cong. & pyroclastic  
\$2-3, kd. 3, the David grass.  
(Dawn Pen)Sugar cane in flat bottom  
of Wagwater R.Grass fallow - *Panicum*  
*maximum*.On lower slopes  
west of Port Maria  
coconuts are, about the  
most prominent woody  
feature but the plantation  
are quite irregular - grassy  
slopes common also.

Point Galina

rough limestone terrace  
outer edge with no  
vascular plants - about  
10-15 m, pitted.Then *Racoulia*, very  
depressed, then a few  
*Plumppia*, a few *Coeloclon*  
very depressed, then  
*Tournefortia*.*Thunax* becomes abundantAt base of limestone  
cliffs, well back of  
shore and perhaps 20'  
alt, striking, well  
preserved rips, 5 mi. W  
of Port Maria.Mouth of Dunn's River,  
just west of Ochs River  
Wooded sea cliff  
of limestone with  
river of milk water  
cascading down over a



— plants seen (ctd. from p. 79)

*Barringtonia asiatica*  
*Gliricidia sepium*  
*Panicum maximum*  
*Spathodea campanulata*  
*Vetiveria*  
*Thunbergia grandiflora*  
*Acalypha wilkesiana*  
*Pentas lanceolata*  
*Scindapsus aureus*  
*Caladium bicolor*  
*Celosia argentea*  
*Codiaeum variegatum*  
*Alternanthera versicolor*  
*Neem podicum*  
*Portulaca grandiflora*  
*Jatropha podagracea*  
*Ruellia equisetiformis*  
*Carex papaya*  
*Coccoloba uvifera*  
*Pityrogramma calomelanos*  
*Antocarpus heterophyllus*  
*Argemone mexicana*  
*Psidium guajava*  
*Sippia nodiflora*  
*Vernonia cinerea*  
*Lantana camara*  
*Cassia alata*  
*Euphorbia tirucalli*  
*Mimosa citrifolia*  
*Polyscias guilfoylei*  
*Persea americana*  
*Cananga odorata*  
*Ricinus communis*

*Pachinonnia aculeata*  
*Jatropha multifida*  
*Pedilanthus tithymaloides*  
*Citrus aurantifolia*  
*Citrus sinensis*  
*Iranthemum pulchellum*  
*Callistephus chinensis*  
*Ficus pumila*  
*Tabernaemontana divaricata*  
*Barleria prionitis*  
*Haematoxylon*  
*Coleus scutellaria*  
*Clerodendrum ugandense*  
*Salvia splendens*  
*Mirabilis jalapa*  
*Sweetenia mahagoni*  
*Annona muricata*  
*Solanum lycopersicon*  
*Pityrogramma calomelanos*  
*Albizia lebbek*  
*Cleome spinosa*  
*Euphorbia timplefolia*  
*Sansevieria guineensis*  
*Gerbera jamesonii*  
*Moringa oleifera*  
*Panicum maximum*  
*Ficus carica*  
*Thunbergia grandiflora*  
*Bocconia*  
*Ricinus*  
*Salvia coccinea*  
*Ferocis (orange)*



series of "sinter basins"  
depositing travertine  
on trees, etc.

at base of cliff a number  
of interesting plants, e.g.  
*Lobelia viridiflora*, *Aristo-*  
*lochia* sp. etc.

above Ocho Rios is  
Fern Gully, a winding  
limestone gorge, deep,  
densely wooded, with  
numerous ferns on the  
sides (75 sp. acc. P. water).

along coast near  
Ocho Rios is an open  
forest or savanna of  
*Pimenta dioica*. This is  
native and wild here, but the  
fruit is harvested for export.

Plateau above Fern Gully  
to the mountains, all  
barren with bauxite  
between hillocks.

Mt. Diablo is a  
limestone massif with  
a karst-like topography.  
Densely wooded all  
over. Not too well known,  
botanically. A large  
sink hole is used as a  
dump for waste (Fed. or M.O.P.).  
Large <sup>nothing</sup> plain SW of  
Mt. Diablo has bauxite  
concentrating plant. The  
plain itself is bauxite.  
Open woody planted  
vegetation - breadfruit,  
coconut, *Blighia*, *Persea*,  
etc.

Canyon of Rio Cobre -  
steep wooded limestone  
walls, below Boo Wall.  
Very viny scrubby forest.

Opens out after some miles  
on a plain mostly in  
sugar cane. Beyond the  
sugar is rather dry savanna  
with a little irrigated cane.  
*Prosopis*, *Inga*, etc.  
Spanish Town.

Beyond, a partly cult.  
plain - *Beira*, *Prosopis*, mango  
& other trees scattered. Some  
sugar + bananas - more and more  
east toward Kingston.



1962 Jamaica

a magnificent open forest of *Samanea* with short grass. A great leathery *Cecropia* tree savanna with low *Prosope*, merging into *Prosope* scrub.

July 13 - south <sup>west</sup> of Waller, St. Ann's Parish,

42651 *Spermofoce suffrutescens* Jacq  
road embankment

July 13 - Mouth of Dunn's River, North coast, St. Ann's Parish,

52 *Lobelia viridiflora* L. <sup>var. *viridis*</sup>  
base of limestone cliff at top of beach.

July 13 - Galina Point, <sup>North coast</sup> <sup>South of Port Maria</sup>

3 53 *Cassia* <sup>*Cassia*</sup> <sup>*clavata* (Poir.) Howard</sup>  
occasional in open scrub

3 54 *Croton* <sup>*Croton*</sup> <sup>*discolor* Willd.</sup>  
occasional in open scrub

1 55 *Cyperus ligularis* L.  
occasional in open low scrub

3 56 *Rachicallis* <sup>*Rachicallis*</sup> <sup>(J. & G.) H. G.</sup>  
very common in open dwarf scrub

3 57 *Echites umbellata* Jacq <sup>Jacq</sup>  
common in open scrub

500 m.

Browns

corollas pink

1 m.

H. rough

stem unbranched, 1 m. tall, leafy <sup>in</sup> top half; flowers light green.

7 m.

St. Mary's Parish

sea cliff

dwarf shrub; flowers yellow.

low shrub.

E. planifolia L. C. Willd.

dwarf shrub up to 0.5 m. tall, flowers yellow.

- vine, twining over bushes; flowers white



- 42658 *Tournefortia graphalodes* L.  
1 local in scrub
- 2 59 *Morinda roycei* L.  
common in scrub
- 2 60 *Spermoecoe verticillata* L.  
common in scrub
- 1 61 *Solanum racemosum* Jacq.  
occasional in scrub
- 1 62 *Morinda roycei* L.  
rare in exposed dwarf scrub  
in spray zone
- 1 63 *Ernodea ~~maritima~~ littoralis*  
common in dwarf scrub  
in spray zone
- 2 64 *Croton ~~callicarpus~~ <sup>ascellus</sup> Willd.*  
occasional in scrub
- 3 65 *Strympfia maritima* Jacq.  
abundant in dwarf  
scrub in spray zone
- 3 66 *Citharexylum ~~pubescens~~ L.*  
occasional in scrub
- 1 67 *Buriana maritima* L.  
occasional in dwarf  
scrub in spray zone
- 3 68 *Conocarpus ~~erectus~~ <sup>erectus</sup> L.*  
rare in ~~dwarf~~ scrub
- 3 69 *Erithalis ~~pubescens~~ <sup>pubescens</sup> L.*  
common in dwarf scrub  
in spray zone
- 3 70 *Jacquinia ~~hugonis~~ <sup>hugonis</sup> Jacq.*  
occasional in dwarf  
scrub in spray zone
- 1 71 *Wedelia trilobata* (L.) Hitchc.  
common on flats back of scrub

rounded bush 1.5 m tall.

shrub; fruit green.

shrub, 1 m tall; flowers  
white.  
suffrutescent; corolla  
purple.

dwarf scrub, prostrate.

dwarf shrub; sterile  
at this season.

small shrub.

dwarf shrub flowers  
pinkish white, fruit white,  
fleshy.

shrub 1.5 m tall, spikes  
pendent, flowers white.  
emergent shrub  
1 m tall; sterile

shrub 0.7 m tall.

dwarf shrub, 1-2 dm.  
tall; flowers white.

shrub 3-4 dm tall,  
flowers white.

prostrate, flowers yellow.

zone



42672 *Portulaca lycopodioides* L.  
 2 along path near buildings

July 13 - Between Golden  
 Valley and Noland Hill,  
 Waqwater River, St. Andrew

1 73 *Zornia* *zornia* *Lourea* *vegetalis*  
 roadside bank in  
 purple conglomerate  
 rock area

July 14 - Eaton Hall, on Runaway Bay,  
 North Coast, St. Ann's Parish  
 along coral strand

2 74 *Canavalia rosea*  
 common

2 75 *Euphorbia* *prostrata* Ait.  
*prostrata* Ait.  
 occasional on open sand and rock

76 *Phaseolus lathyroides* L.  
 rare, roadside

4 77 *Casipia lanceolata* (Willd.) O.E.  
 occasional at E of beach

4 78 *Desmodium* *catenatum* (L.) DC.  
 common on sand flat

1 79 *Euphorbia meumbrianthemiifolia* Jacq.  
 rare on sand flat

4 80 *Spermo-corys suffrutescens* Jacq.  
 common back from beach

1 81 *Spilanthes* *viridis* Jacq.  
 locally abundant

3 82 *Caesalpinia bonduc* (L.) Roxb.  
 in edge of thicket

1 83 *Sesuvium portulacastrum*  
 common on sand flat

flowers white

300 m.

Parish  
 (L.F.)

1 m.

*Canavalia* (Ault.) Thunb.  
 vine, climbing in  
 thicket; flowers rose pink  
 plant purple, prostrate

erect; flowers maroon.

2. *Casipia*  
 plant much branched,  
 fleshy, flowers white.  
 erect shrub 1 m tall

*Euphorbia* (L.) DC.  
 dwarf shrub.

*Spermo-corys* (L.) Jacq.  
 plant spreading,  
 buds pinkish,  
 stems ascending; heads  
 white.

scrambling vine, sterile;  
 collected to show compound stipules.  
 prostrate, very fleshy,  
 leaves not very glossy; flowers pinkish



Eaton Hall  
is just  
east of  
Pennyway  
Bay

July 14 - Trip Kingston to  
~~East~~ Eaton Hall - same  
route as return yesterday  
from Dunn's River.

Reef in front of bay -  
a shelf out about  
400 m. from shore at about  
15 m. depth, with  
scattered ~~massive~~ corals  
a little *Acropora cervicornis*

Rock sample  
taken from  
near  
entrance  
to tunnel  
from  
west side  
entrance  
at 170'  
indicated

of a very elongate, attenuate  
form, some sponges, etc,  
but not a <sup>completely</sup> closed formation.

A deep channel cuts  
this ledge. Back of this  
platform is a <sup>deep</sup> depression  
parallel to the reef front,  
which funnels down  
into the channel. The  
channel forms an  
outlet for the sediments  
accumulated in  
the depression and on the  
reef shoreward of it.

Platform of pitted limestone  
at about  $\frac{1}{2}$  ft above mean  
low tide line, a good part  
of the shore. Collected  
a sample of the pitted  
surface just about at a  
somewhat below high tide  
level.









Eaton Hall is just east of Rumour Bay

July 14 - Trip Kingston to ~~East~~ Eaton Hall - same route as return yesterday from Dunn's River.

Reef in front of bay - a shelf out about 400 m. from shore at about 15 m. depth, with scattered ~~massive~~ corals

a little *Acropora cervicornis* of a very elongate, attenuate form, some sponges, etc. but not a ~~compact~~ <sup>solid</sup> formation

A deep channel cuts this ledge. Back of this platform is a <sup>deep</sup> depression parallel to the reef front, which funnels down into the channel. The channel forms an outlet for the sediments accumulated in the depression and on the reef shoreward of it.

Platform of pitted limestone at about 10 ft above mean low tide line a good part of the shore. Collected a sample of the pitted surface just about at or somewhat below high tide level.

Reef sample taken from near entrance to tunnel from east side of reef in inlet entrance at 1:30 in detrital

Basin between 2 groins perpendicular to beach with reefs parallel to beach coming close enough to surface to prevent strong currents from scouring and removing plant fragments. Some *Acropora thalassia* and some bare <sup>rippled</sup> <sup>marginated</sup> sand with a few balls and loose clumps of algae. Lowest part of basin collects *Thalassia* fragments + algae to form a soup. In this and the most numerous algal balls. Wave action continuously rolls material in these basins back and forth.

*Corallina subulata*

*Cladophora* sp.

*Diapora* sp.

*Galaxaura* sp.

*Limpidaria* sp.

*Galaxaura marginata*

*Lyothraamnion triquetrum* (Griseb.) Howe

Vegetation along shore is a mixture of herbaceous strand and low thickets, with coconut plantation back of it on the sand flat.



- 42684 *Thalassia testudinorum* <sup>Wray</sup>  
forming sod in shallow water
- 3 85 *Philoxerus vermicularis*  
common on sand
- 3 86 *Borreria* <sup>albicans, L. 1734</sup>  
local on limestone rocks
- 3 87 *Colubrina asiatica* (L.) <sup>Wray</sup>  
local on limestone rocks
- 3 88 *Halimeda gracilis* <sup>Wray in T. Ag.</sup>  
in deep water
- 1 89 *Halimeda* <sup>goreauii Taylor</sup>  
in deep water
- 90 *Bryothamnion triquetrum* (Fensholt) <sup>Wray</sup>  
on reefs in shallow water
- 2 91 *Padina* <sup>sandersonii Wray 1962</sup>  
on reefs and flats in  
very shallow water
- 1 92 *Turbinaria turbinata* (L.) <sup>Wray</sup>  
on rocks in very shallow  
water

July 15 - ~~at the back of~~ Pt Henderson  
in dense microphyllous  
scrub on bare limestone

- 2 93 *Canellia* <sup>fragrans, elliptica</sup>  
occasional
- 2 94 *Guaiacum officinale* L.  
common
- 3 95 *Crotona caribaea* (Torr.) <sup>Wray</sup>  
rare
- 3 96 *Bursera simplicifolia* <sup>Wray</sup>  
occasional
- 1 97 *Rhacoma* <sup>occipitalis L.</sup>  
~~occasional~~ occasional (to m. 100)

1 m.

sterile

(L.) R. Wray

prostrate, sub-fleshy

shrub up to 1 m. tall;  
grayish; heads yellow.  
forming tangled thicket  
3 m. tall, leaves glossy;  
flowers yellow-green.

Hill, above Green Bay, St. Catherine Parish

100 m.

fragrant shrub 1 m. tall,  
sterile

small tree 4 m. tall,  
fruit orange-yellow.  
~~at~~ shrub 2.5 m. tall,  
almost leafless at this time.  
small tree 4 m. tall (others  
larger), fruit green.  
shrub; ripe fruit red.



July 15 - trip to Port Henderson area.

Flats n. of Port Henderson Hill - irregularly, came, were and were dry and saline as coast is approached. Batis, then

On hill itself the vegetation is relatively undisturbed - a spiny scrub on bare rock - Cassia sp. is perhaps most common shrub.

Acacia, Capparis  
 Schroepfia, Schaefferia  
 Psidium, Convolvulium  
 velutina (very poisonous)  
 Guaiacum, Bursera,  
 Tabebuia, Helicteres,  
 - farcophalus Bursera (F. H.),  
 Pouteria, Oplonia,  
 Diospyros, Tournefortia,  
 Argemone, Croton ~~sp.~~  
 Agave sp., Cereus, Bromelia,  
 Anellia, Bernardia,

Heliotropium, Metopium <sup>bracteata</sup>,  
 Rhamnus, Cissampelos.

(Photos - low + nod  
 incl. bot. of barrier reef  
 + Palisades)

Calliandra haematomma  
 Passiflora perfoliata

This is a predominantly  
 open



- 42698 *Piscidia* *parvifolia* (L.) Vog.  
1 common
- 5 99 *Sarcophalis* *lancea* Jacq.  
common
- 42700 *Tabebuia* *repanda* (Raf.) Sander  
2 occasional
- 1 01 *Bourreria* *velutina* (DC) Gürke  
occasional
- 1 02 *Passiflora* *foliolata* L.  
rare
- 1 03 *Tournefortia* *axillaris* (Sw.) Merr.  
rare
- 4 04 *Cissus* *triplicata* L.  
common, climbing in  
arborescent *Cereus*

July 15 - Kingston

- 3 05 *Bauhinia* *gaspardii* H.B.K. f.  
cultivated

July 16 - Stewart - Watley Park  
Road, grade above River head, etc.  
roadside in scrub forest on steep  
limestone slope.

- 1 06 *Anemopa* *auriculata* (L.) Merr.  
common on
- 2 07 *Scleria* *bibocarpina* (L.) Sw.  
common on
- 4 08 *Guettarda* *argentea* Lam.  
occasional on

small tree, 4 m tall.

- small tree, 4 m tall;  
- flowers yellow green.  
- shrub 3 m tall,  
- fruit green.  
- shrub 2 m tall,  
- flowers white;  
(other seen, sterile, with  
- leaves much larger)  
- vine climbing in  
- bushes, flowers maroon.  
- shrub, fruit green.  
- climber; fruit green.

small tree, flowers  
salmon colored.

400 m.

Catherine Parish

- culms almost erect.  
- shrub 3 m tall, buds white  
- corollas withered.



July 10 - trip to Mason River  
savanna.

near Spanish Town - Prosopis  
scrub and scrub forest on  
small hills; scattered  
Prosopis, Lantana, etc. on  
flat land. Coconuts, mango,  
etc. along roads. Tribulus  
cristoides very abundant  
on roadsides.

Canyon below Bog Walk  
is densely wooded. Much  
breadfruit on floor of valley.  
Mambos and Cecropia common  
on lower slopes, also some  
coconuts locally. Less disturbed  
forest on upper slopes and cliffs  
of limestone.

Mauritius plant near <sup>Cayman</sup>~~Barbados~~  
concentrates ~~into~~ alumina from  
terra rossa that is accumulated  
in depressions in karst.

Worthy Park Valley is a large  
flat covered by sugar plantation  
surrounded by high karst.  
Dammed by a river that  
goes underground through  
the mountains to River Head  
then joins R. of Cole.

Hills bet. Lluís Vek  
and Crafts Hill -  
Limestone hills  
partly cleared - much  
flora in thickets on  
steep places.

Mason River savanna  
a rolling flat ~~to~~<sup>to</sup> ~~side~~  
surrounded by hills of  
limestone on north and west  
~~side~~ <sup>a river</sup> ~~side~~ on other side

A closed mixture  
of many species of  
sedges, grasses, ~~and~~  
several ferns, Centella  
etc. herbaceous in  
places, in other places  
shrubby, the shrubs  
mostly Melastomaceae  
In some areas scattered  
Cyrtilla, ~~Saururus?~~  
Clethra, Cordia jamaicensis  
Eugenia, Cecoloba, etc.

Low areas ~~are~~ boggy  
with hummocks of *Blechnum*  
with deep channels between  
them. Sphagnum in channels.  
*Blechnum* is dominant in bogs.

Apparently underlain  
by a clay pan  
(Road above River Head on W.P. Inverness Rd.)  
photo (Wodsch from Hill of Worthy Park  
- looking across Worthy Park V.)



Some cultivation -  
taro, maize, etc.  
Pigs, goats, donkeys  
are making roads.  
Mr. Atkinson, owner, is  
interested in having  
the area preserved.

July 14 - Hills between  
Bluidas Vale and Croft Hill  
Arendon St. Catherine Parish  
in thicket on steep  
limestone slope.

- 42709 *Lantana camara* L.  
roadside  
7 10 *Portulandia grandiflora* L.  
on cliff  
3 11 *Croton* <sup>longifolius Lam.</sup>  
3 12 *Sporoxea hospallia* Wedd.  
climbing in tree tops  
1 13 ? *Gynostemma elliptica* Sw.  
2 14 *Brysonima coccinea* (Sw.) DC.  
3 15 (Molard.) *Tetrasiphon pallens*  
occasional  
1 16 *Salvia* <sup>montana L.</sup>  
occasional

1700' 510'

- shrub 1 m. tall; flowers  
orange, fruits turning blue.  
shrub 1 m. tall.  
slender shrub 4 m. tall.  
twines; fl. corollas deep  
maroon purple, firm  
glossy.  
small tree,  
flowers bright yellow  
small tree: petals  
white stamens yellow.  
aromatic subfrutescent;  
flowers blue.



- 42719 *Lasianthus* <sup>linearis</sup> *divaricata* (L.) W. & A.  
rare
- 3 20 *Borreria* *laevis* (Lam.) Gleason  
common on roadside
- 2 24 *Heliconia* *elliptica* (L.) Sw.  
common on roadside
- 1 22 *Cheilanthes* *microphylla* Sw.  
rare at base of cliff above road
- 4 23 *Cordia* *jamaicensis* T. M. Trelat  
occasional
- 2 29 *Psychotria* *dura*? Gleason?  
rare
- 1 25 *Stachytarpheta* *jamaicensis*  
occasional on roadside
- 8 26 *Eugenia* <sup>sp. nov.</sup> *acutisepala* Proctor  
occasional

July 16 - ~~Maroon River~~

- 1 77 *Panicum* *pulchrum* Gussone  
occasional

July 16 - Kellits, Clarendon Parish

- 1 28 *Senecio* *discolor* (Sw.) DC.  
roadside thicket

July 16 - Maroon River Savanna  
west of Kellits, Clarendon Parish  
on rolling open ground

- 0 29 *Ipomoea* *villosa* Hook.  
climbing on small shrubs  
in savanna
- 2 30 *Panicum* *polycarpon* Nash  
common in moist savanna

(42920)  
sp. nov.  
suffruticose  
Jacq.

spreading plant;  
flowers pinkish.

shrub; flowers white.

shrub; flowers white.

(L.) Vahl flowers medium purple,  
not very pale.

small tree; flowers  
inconspicuous, white.  
(being described as new by Proctor)

shrub.

600 m.

shrub; flowers dried.

2500 - 700 m.

prostrate, forming mat.



- 42231 *Panicum* ~~decoloratum~~ *decoloratum* Desv.  
occasional in moist savanna
- 3 32 *Coccyzselum* ~~hispidum~~ *hispidum* Nees  
common in moist savanna
- 1 33 *Cuphea* *parsonsia* (L.) R. Br.  
rare in savanna
- 1 34 *Sauvagesia* *brunnei* Planch.  
common in moist savanna
- 1 35 *Agalinis* ~~albicans~~ *albicans* (Sw.) Pennell *gambica*  
occasional in moist savanna
- 2 36 (melast.) *Heisteria* *prostrata* Turcz. ex Trin.  
common in moist savanna
- 1 37 *Paspalum* *notatum* Steud.  
occasional in moist savanna
- 1 38 *Scleria* *hypochrysa* (Naud.) Ell.  
occasional in moist savanna
- 2 39 *Scleria* *verticillata* Sw.  
common in moist savanna
- 1 40 *Scleria* *citata* Michx. var. *elliotii*  
in moist savanna
- 2 41 *Utricularia* *pusilla*  
common on open mud.
- 2 42 *Scleria* *plumbea* Presl  
common in well drained savanna
- 3 43 *Cyrtia* *nauseiflora* L.  
occasional in well drained savanna
- 3 44 *Cyrtia* "  
same
- 2 45 *Centella* *repanda* (L.) Ell.  
abundant generally in savanna and scrub
- 1 46 *Spermacoce*  
common in well drained savanna

procumbent to ascending

prostrate; flowers purple.

flowers pink

flowers white.

flower whitish.

flowers rose pink.

depressed.

Ell.

(Chapm.) Presl

erect; flowers ~~yellow~~ yellow.

erect

shrub 2.5 m tall,  
flowers white, ~~for~~ young  
fruit greenish.

same, but ~~the~~ young  
fruit reddish.

leaves erect.

fruiting stem's erect.

flowers pinkish white.

Presl  
(L.) Presl



- 42747 *Desmodium barbatum* (L.) Benth.  
rare in well drained savanna
- 48 *Polygala paniculata* L.  
rare in well drained savanna
- 2 49 *Panicum paniculatum* Lam. ?  
common in well drained savanna
- 3 50 *Fimbristylis complanata* (Nag.) Hitch.  
common in well drained savanna
- 2 51 *Hypoxis decumbens* L.  
common in shady spot
- 3 52 *Scleria georgiana* Torr.  
locally abundant in well drained savanna.
- 3 53 (grass) *Panicum stricklandii* Gilg.  
abundant locally in savanna
- 1 54 (sedge?) *Rhynchospora oligantha* A. Gray  
common in savanna
- 4 55 *Eleocharis mutata* (L.) Nees  
~~in bog~~ local in open water in bog
- 2 56 *Fuirena* ~~in bog~~ *bulbosa* (L.) Hitch.  
local in ~~top~~ open water in bog
- 3 57 *Osmunda cinnamomea* L.  
local in hummocks in bog
- 2 58 *Panicum zizanioides* (L.) Hitch.  
local in bog
- 2 59 (moss?) *Dryas octopetala* (A. N. S. P.) Hed.  
common in bog
- 3 60 *Mayaca flaccida* A. N. S. P.  
common in open spots in bog
- 1 61 *Buckneria elongata* Sw.  
rare in edge of bog
- 1 62 *Xyris jamaicensis* L. C. Rich.  
occasional in edge of bog

flowers purple.

roots have wintergreen odor when crushed; flowers purplish.

culms solitary, erect.

<sup>bulbs</sup> bulbs deeply buried; flowers yellow.

in barometer gate

culms sharply trigonous.

strictly erect, sterile at this season.

flowers white.

flowers white.

flowers pink.

flowers yellow



- 42763 *Eleocharis reticulata* (Sw.) Vahl  
1 common in mud at edge of bog
- 2 64 *Panicum parvifolium* Lam.  
on and between hummocks  
in bog.
- 4 65 *Andropogon bicolor* L.  
common locally in savanna
- 2 66 *Tournefortia hirsutissima* L.  
rare in stream thicket
- 1 67 *Rhynchospora polyplylla*  
common in edge of scrub
- 3 68 *Rhynchospora robusta* (Kunt.)  
common in shrub savanna  
in wet spots
- 2 69 *Rhynchospora polyplylla* Vahl  
common in shrub savanna
- 1 70 *Blechnum serrulatum* L. f. Hook.  
abundant generally,  
dominant in bogs.
- 2 71 *Eleocharis elyana* (H.B.K.) R.S.  
local in muddy place
- 1 72 *Equisetum giganteum* L.  
local in low thicket & scrub
- 1 73 *Panicum glutinosum* Sw.  
rare in scrub
- 1 74 *Ermitis javanica* (Burm.f.) Rob.  
occasional in dry disturbed  
savanna.
- 1 75 *Bursera lasiocarpa* (Sw.) Spreng.  
rare in scrub
- 3 76 *Cordia jamaicensis* (L.) Schult.  
rare in well drained savanna
- 3 77 *Lycianthes esseta* Lamour.  
rare in well drained savanna

erect, to 2 m tall.

shrub; flowers white.

~~*Propitium frutescens* H.B.K.~~

Bursera?

fronds strictly erect.

*P. ...*

shrub 2 m tall.

shrub 1 m tall,  
flowers yellow



1962 Jamaica

- 42778 *Sphagnum*  
1 in ~~the~~ deep channels  
between hummocks in  
shrub swamp.
- 4 79 *Lindsaya* ~~puberula~~ <sup>puberula</sup> ~~Desv.~~  
common in shrub swamp
- 2 80 ~~Zinnia~~ *Melochia villosa* (Mill.)  
local on small knoll in  
savanna.
- 2 81 *Cassia alata* (L.) (Poir.) Walp.  
occasional in well drained  
savanna.
- 4 82 *Eugenia uibonella* (L.) K. Walp.  
local in ~~the~~ savanna  
and scrub.
- 3 83 *Clethra uidaetala* (L.) Steud.  
rare in savanna

with  
Pinto July 16 - Mason River,  
Northwest of Hellier, St. Ann's Parish  
on wooded limestone hilltop

- 3 84 *Phyllanthus arbuscula* (L.)  
2 85 *Croton laurinus* Sw.

Ex. Pl.

flowers purple.

shrub 1.5 m tall

shrub 1.5 m tall;  
fruit immature.shrub 2 m tall;  
flowers white

2300 700 m

y.d.

shrub 2 m tall,  
flowers redshrub 3 m tall, spikes  
pendent, flowers white.



July 18 - Northeast Cay

Plants noted

*Sesuvium portulacastrum*  
*Tournefortia argentea*  
*Cyperus ligularis*  
*Suaeda maritima*  
*Portulaca oleracea*  
~~2~~ *Paspalum distichum*

The key has a beach ridge around sides and a shallow depression in central portion. This has some salt water and is mostly covered by *Sesuvium*. This extends up almost to the top of the inner slope.

Set a graduated stake, with marks at inch intervals in a small pool near north end of depression.

Level on July 18 - 12 noon	6"
5 p.m.	5 1/2"
7 p.m.	5"
19 9:30 a.m.	7 1/4"
1:40 p.m.	7"
7:00 p.m.	6 1/2"
10:00 p.m.	6 1/2"
20 7:15 a.m.	8"
5:30 p.m.	6 1/2"
21 7:30 a.m.	7"

## Birds

Large flock of frigate birds, 265  
~~lots of~~ Terns, many scattered.

Noddies, several seen

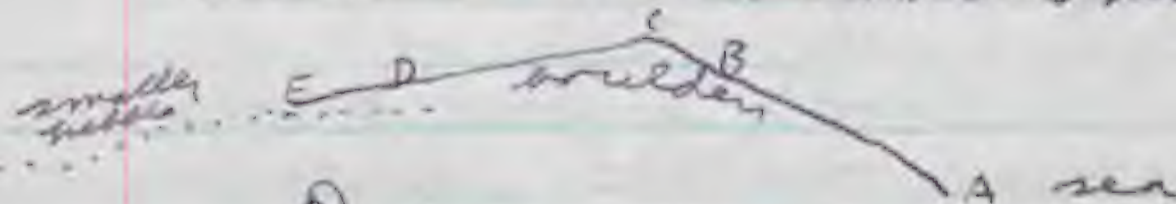
2 laughing gulls

6 royal terns

Bridled terns mainly resting, flying up and coming to rest again.

Boulder ridge on northeast side of corals up to 1 m. or more in greatest length (largest noted 64 x 39 x 20") mostly apparently single colonies. Sand in interstices in lower layers.

*Citharina* sp. scattered on these boulders to the inner edge of the layer of large boulders. Most abundant in B-C-D part.



Depression with water said to have resulted from phosphate excavation. Cyanophyceae abundant in water forming a coating on bottom which is loosening, rising toward top.



Frigate birds arrived about 10:30 a.m. soaring mostly just to windward of island. Numbers increased, then fell off till at about 6:15 p.m. there were only 18 left.

4 left  
at 6:30  
none at 7

Sooty terns rested on rocks, bushes, etc. facing into wind, mostly on windward side of island especially on boulder ridge. When approached they seemed a bit reluctant to leave.

Royal terns congregated on a beach rock point at south end of islet. With them were two laughing gulls which soon left. The terns stayed sitting for a time.

Rocks on beach ridges are notably darkened (by algae?). Portulaca seedlings growing in pits in rocks.

Sesuvium generally very green and healthy, but in places where it is growing at about 500 water table has the leaves dead. stems still green.

The beach ridge on the <sup>north part of</sup> west side is broad and of sand. On the south part of east side a boulder ridge has been covered by sand.

Great slabs of beachrock have been thrown up onto or over the top of the beach ridge on the southeast shore.

In about the middle of the west side is a stretch of boulder ridge.

At night land crabs are quite numerous, but not very large. seem to be more abundant back of the beach. scarcely any seen on beach proper, and none going down to the water. Both land and hermit crabs seem a bit more numerous toward the south, especially hermit crabs. Only one ghost crab seen, at south point.

Portulaca has 20-30 stamens  
fls 7-10 mm. across.

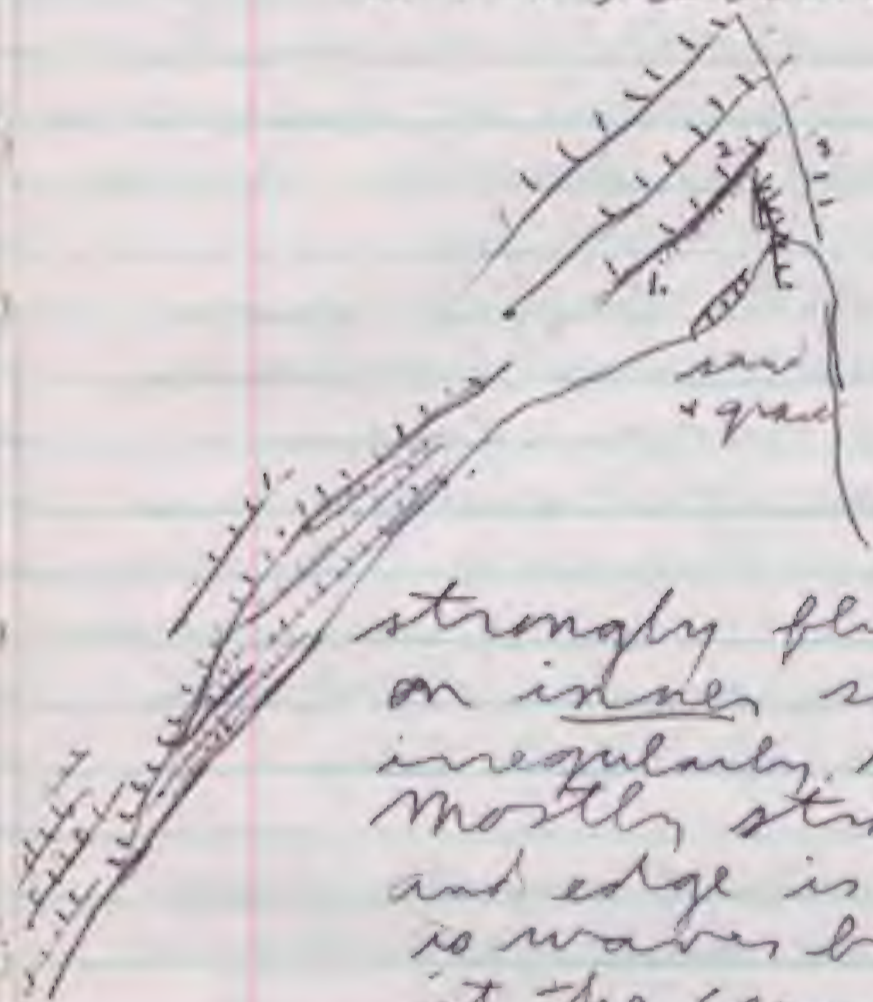


July 19 - M. E. Cay.

4 noddies near s. end.  
 2 sandwich terns  
 (light back, large blackbill)  
 on s. point.  
 1 frigate bird at 8:30  
 4 at 10:30 25 at 11:00  
 increased rapidly after that.  
 hand samples. <sup>to well over 100.</sup>

- 1 south point windward
- 2 " " leeward  
 very close together (2 m).
- 3 150 paces n. on east shore  
 intertidal below a  
 small gravel beach
- 4 same, storm beach  
 above small gravel  
 beach. (also incl.  
 Tournefortia fruits  
 from nearby plant).
- 5 from about 100 paces  
 farther north, north  
 of last lagoon -  
 sand from back of  
 crest of boulder ridge.
- 6 - on west side, 150 paces  
 from point, intertidal
- 7 same, well above  
 h.t.
- 8 150 paces farther  
 north, ~~near~~ just  
 below extreme  
 swash.
- 9 from top of intertidal beach  
 opposite tent.

North extension of  
 s. point has been removed  
 by storm, leaving beach  
 rock outlines



1. runs  
 series of  
 beach  
 rock  
~~forms~~ forms  
 sharp  
 crests  
 This is

strongly fluted or channeled  
 on inner side, rather  
 irregularly, but sharply  
 mostly strongly undercut  
 and edge is toothed.  
 as waves break over  
 it the current is very  
 strong downward, much  
 less water goes back  
 Channels are covered by  
 algal film.

2. An irregular eroded  
 snag of higher beachrock  
 from which a sample  
 was collected for surface  
 examination. arrow indicates  
 upper surface. Lower was  
 certainly protected from  
 much abrasion.
3. Pebble from accumulation  
 in foot hole for surface exam.



## Bottles, jars, etc.

1. insects, spiders, etc. collected in tent and immediate vicinity - tent pitched on *Sesuvium* mat on sand. N.E. Cay
2. Bottom layer from sweeping *buriana*  
Top layer from sweeping *Sesuvium*  
N.E. Cay
3. Land shell from surface of ground at south tip of N.E. Cay.
4. Hermit crabs from w. side of N.E. Cay - on land.  
Land crabs from w. side N.E. Cay on land.  
Ghost crabs from south point of N.E. Cay on beach - above high tide level - only seen here.  
*Littorina* - from top of boulder ridge on east side of Cay.
5. Insects from *Tournefortia*
6. Insects, etc. found on beach (*Halobates*) and in

low cliff in boulder ridge back of beach rock on w. side of south point.

7. Insects from root crowns of *Cyperus <sup>plagioides</sup> ~~biguttatus~~* back of beach ridge at south point.  
(large black beetle running on ground.)
8. Insects from *Tournefortia graphalodes*, Southwest Cay
9. Crabs, etc. from Middle Cay.
10. Insects, etc. from under rocks in occasionally flooded depression with *Cyperus <sup>plagioides</sup> ~~biguttatus~~* Middle Cay.
11. Lizard from under stones as in 10. Middle Cay
12. Grasshoppers from *Tournefortia* scrub on sand flat, Middle Cay
13. Spiders, etc. from *Tournefortia*, Southwest Cay.
14. N.E. Cay, under <sup>rocks</sup> stones in low wet *Sesuvium*

15. Lizard, N.E. Cay



Two large swallows very dark blue, almost black, on back, light tan beneath, tail dark but lightly banded and forked. These were skimming the low terrarium and ponds. (Bunker said he saw a number of these last evening, Cave swallow?)

Clumps of *Cyperus* near south point all or practically all have ants in the root crowns - some of them at least 2 species, a yellow one and a black smaller one which varies greatly in size. Both run rapidly when aroused and the black one bites vigorously and painfully. A few other insects also found in dead root crowns - a beetle or two, Collembola, etc. ~~was~~ worms. Small cricket not caught.

Along the west shore of south point perhaps 50 yards north, or more is a low cliff cut in a beach ridge of small boulders. Many sea fans, etc. In this, in the

interstices, is a fairly diverse fauna - 2 spp. of Lepismids, 1 of Machilis, 1 or 2 beetles, spiders, a pseudoscorpion (not caught). (These in vial #6)

The open water areas in the central depression are lined with a friable mud - greenish and with considerable organic matter (algal?) in the upper inch and a half, turning to gray, strong fetid odor, at least partly H<sub>2</sub>S. For one or two inches, then changing gradually to brownish and becoming pale downward, also becoming more sandy. (sample 16) Sample is a mixture from upper 5 inches.

The areas of terrarium tend to be rocky.

The central parts of the islet, especially in the south part, have many irregular heaps of stone. Perhaps remain from phosphate mining - waste material!

Practically no insects attracted to a strong Coleman lamp.



Line leveled with levels  
from pool with stakes to  
high tide mark on beach. E-W.

0	-	5' 9"
19	-	+ 11"
21	-	+ 81"
14	-	+ 27"
17	-	+ 11"
7	-	- 28"
7	-	- 41"



July 20 - Southwest Cay  
 Longitudinal depression  
 almost the length of the cay  
 surrounded by slopes  
 covered by luxuriant  
 Sesuvium mat  
 Piles of rock scattered  
 generally.  
 Sand lobe on northwest  
 corner.

Tournefortia on beach  
 ridge ~~to~~ around north  
 half. scattered plants  
 of it around the south  
 half.

Cyperus scattered  
 irregularly, especially  
 in central part of  
~~the~~ both beach  
 ridges and slope.  
 Paspalum scattered, also,  
 and toward central depression  
 forms sizeable clumps  
 in which nodules nest

A bare mound of sand  
 on w side has many cut  
 holes, a few tiny tufts of  
 Paspalum.

## Birds

Time	Location	Species	Count	Notes
7:00	Beach	Red-footed Booby	1	
7:15	Beach	Red-footed Booby	1	
7:30	Beach	Red-footed Booby	1	
7:45	Beach	Red-footed Booby	1	
8:00	Beach	Red-footed Booby	1	
8:15	Beach	Red-footed Booby	1	
8:30	Beach	Red-footed Booby	1	
8:45	Beach	Red-footed Booby	1	
9:00	Beach	Red-footed Booby	1	
9:15	Beach	Red-footed Booby	1	
9:30	Beach	Red-footed Booby	1	
9:45	Beach	Red-footed Booby	1	
10:00	Beach	Red-footed Booby	1	
10:15	Beach	Red-footed Booby	1	
10:30	Beach	Red-footed Booby	1	
10:45	Beach	Red-footed Booby	1	
11:00	Beach	Red-footed Booby	1	
11:15	Beach	Red-footed Booby	1	
11:30	Beach	Red-footed Booby	1	
11:45	Beach	Red-footed Booby	1	
12:00	Beach	Red-footed Booby	1	

over  
to  
(the

more hollow when on sand  
 up to 3-4 cm across, 1-2 cm thick.



List of animals collected on Pedro Cays

by F. R. Fosberg, July 1962

1. Insects, spiders, etc., collected on North East Cay around camp site, on Sesuvium mat on well drained ground, some attracted to lights or to food. The area is a wide sand ridge on the leeward side. July 18-24 '62.
2. The insects in the layer above the cotton obtained by sweeping Sesuvium. Those on the bottom collected by sweeping Suriana maritima (mostly not in flower). North East Cay, July 18 '62.
3. Land shell found on surface of the ground under Suriana maritima scrub on flat ground inland from beach near south tip of island. July 18 '62.
4. Large jar, North East Cay; Land crabs from broad sand ridge on west side, burrowing. Ghost crabs from top of beach above high tide level, near south tip of islet, only seen here. Littorina, common on high boulder ridge, up to 10-12 feet, clinging to boulders--apparently most abundant on highest part of ridge. Hermit crabs from back of beach on south half of west side of cay.
5. Insects obtained by beating Tournefortia gnaphalodes, south end of North East Cay. July 19, 1962.
6. Insects, spiders, etc., found in interstices of low cliff in boulder ridge just above high tide level on west side of south end of North East Cay, July 19, 1962.  
Also Halobates and Lygia from beach on east side of south end of cay.
7. Insects, etc. from root crowns of Cyperus ligularis, back of beach ridge north of south point of North East Cay, in rocky ground. Each clump had ants, usually both black and yellow (the black beetle was running on the ground). July 19, 1962.
8. Insects ~~ant-spiders~~ from Tournefortia gnaphalodes on ~~Southwest~~ North East Cay, July 20 '62.
9. Crabs, hermit crabs, lizard and grasshoppers from southeast side of Middle Cay, July 21, 1962. All were under stones in low spot except grasshoppers which were in Tournefortia scrub on beach on west side.
10. Insects, spiders, etc. from under rocks in occasionally flooded depressions with a sparse stand of Cyperus ligularis, dark gray soil. On southeast side of Middle Cay, July 21, 1962.
11. Lizard from under stones, southeast side of Middle Cay, July 21, 1962.
12. Grasshoppers from Tournefortia scrub (same as # 9).
13. Spiders and insects from Tournefortia gnaphalodes, Southwest Cay, July 20 '62.
14. Insects, spiders, millipeds, earthworms, etc., from under low heap of stones and conchs in low wet saline area, in Sesuvium portulacastrum vegetation, near middle of North East Cay, July 22, 1962.
15. Lizard from Sesuvium portulacastrum on low sand ridge, North East Cay, July 22, 1962.

After these have been examined, please retain any that are of special interest for the Institute of Jamaica museum, and forward the rest to

F. R. Fosberg  
Pacific Vegetation Project  
% National Research Council, Washington 25, D.C., U.S.A.

I would very much appreciate names for any or all of these, associated with the lot numbers.



July 20 - Southwest Cay  
 Longitudinal depression  
 almost the length of the cays  
 surrounded by slopes  
 covered by luxuriant  
 Sesuvium mat

Piles of rock scattered  
 generally.

Land lobe on northwest  
 corner.

Tournefortia on beach  
 ridge ~~at~~ around north  
 half. scattered plants  
 of it around the south  
 half.

Cyperus scattered  
 irregularly, especially  
 in central part of  
~~north~~ both beach  
 ridges and slope.

Paspalum scattered, also,  
 and toward central depression  
 forms sizeable clumps  
 in which noddies nest

A bare mound of sand  
 on W side has many cut  
 holes, a few tiny tufts of  
 Paspalum.

## Birds

Multitudes of sooty tern  
 some with eggs, but  
 very few.

large flock of frigate  
 bird soaring over  
 windward side.

crowded colony of nests.

Brown boobie

hundreds nesting on  
 flat ground on east  
 and south parts of cays.

Noddies.

nests with eggs, small  
 accumulations of Sesuvium  
 and shells in clumps of Sesuvium

laughing gull

many, flying  
 around protections  
 with noddies when  
 nests of noddies  
 are disturbed

both royal <sup>and smaller</sup>

royal terns? very pale  
 above, black head, rump,  
 beak - but smaller than  
 sooty tern - sitting in flocks  
 around the ponds.

bandwidth terns - with  
 royal ~~terns~~ and sooty.

Noddy nests all seem  
 to be made of Sesuvium  
 more bulky when in bush  
 up to 3-4 inches, 1-2 cm thick.

plants  
 food  
 6+ 10

common  
 tern  
 (Sterna  
 bergii)



Clump of cordia on  
w. side about 5 m. away.  
only a stump left of central  
tree, peripheral ones  
badly wind-beaten.  
Several other clumps  
scattered to north  
end.

Sample of sand from  
under noddy nest  
in Sesuvium mat  
on inner slope.

Many noddy nests  
in Tournefortia bushes.  
A few on ground. All made  
of Sesuvium.  
Tournefortia has been  
chopped away to some  
extent (photos)

W's  
Three views across roads  
and Sesuvium in north  
end.

Photos  
Several of sand, low  
and seedling Tournefortia,  
and of broad belt of  
Tournefortia scrub on  
sand flat, at northwest  
corner. Scrub is from 1.5  
m. high, closed to almost so.

Photos  
panoramic series south,  
from inner edge of scrub  
near north end showing  
sooty terns, belts of  
vegetation, & pond.

Locally much Portulaca  
on sandy places on east  
beach ridge which is a  
mixture of sand and  
cobbles. Also on a  
consolidated phosphate  
platform just inland  
from beach ridge perhaps  
2 m. above pond level  
(photos) (sample)  
Perhaps half an acre -  
multitude of <sup>birds</sup> sooty terns  
a few sandwich tern.  
A few of the sooties have  
eggs.

Colony of 30-40 frigate  
bird nests with almost  
grown young - bluish  
white heads, can fly a  
little. Nests are mounds  
of guano supported by  
broken Tournefortia branches,  
but definitely on ground.  
Colony perhaps 15 x 30 m.  
in Tournefortia on windward  
side. (photos)

Wide Portulaca flats  
on e. side with many



Brown boobies nestings on ground, nests of *Portulaca* with occasionally, *Lagassum* (photos), 1 or 2 eggs, these greenish white, scarcely spotted. Many birds. All except one seen in adult plumage.

A few *Suriana* clumps scattered on this flat. (photos). Some mats of *Lesoum* mixed with *Portulaca*, or *Paspalum*.

Patches of phosphate platform common here, somewhat south of axis from coconut trees.

See large circular patches of *Lesoum* many in areas *Portulaca* on both loose sand and on consolidated or semi-consolidated phosphatic conglomerate.

Around south end a very high, very steep boulder ridge possibly partly or wholly artificial.

Found *Leptocarpus* on outer slope. (photos)

In s.w. corner a small pond enclosed by a cobble ridge. Small *Suriana* inside ridge. Dead *Tournefortia* + some *Suriana* seedlings + *Lesoum*

in bar (photos)  
Just north of this on inner edge of sw. beach ridge a another overhanging phosphate platform (sample) (photos)

Noddies seen nesting in all plants except *Leptocarpus*, also on ground and in mass of sea fan, etc. Always at least some semblance of a nest, but when on ground very little. Almost always some shells.

Principal vegetation type are *Lesoum* mat, *Tournefortia* scrub, and *Portulaca* flats. Ponds in depression contain blue-green algae.

*Paspalum* is scattered on beach ridges and inner slopes, also *Cyperus*, but more local. One coconut tree on a mound of sand.

Photos 6-4 finished here, 6-5 started and mostly used here (finished on 7-5 day, from other photos) had roll finished some on 5-4, finished on 7-6



July 19 - North East Cay  
on flat calcareous soil

- 42786 *Cabrita lanceolata*  
a few seedlings only, back  
of beach on west side
- 87 *Lesoum ~~portulacastrum~~*  
abundant, covering  
most of the islet
- 88 *Cyperus ~~ligularis~~ <sup>planifolius</sup> L. C. Rich.*  
locally abundant  
on sandy or gravelly beach  
ridges
- 89 *Paspalum distichum* L.  
common on leeward beach  
ridge of sand
- 90 *Portulaca ~~lanceolata~~ sericea*  
common on sandy places
- 91 *Tournefortia graphalodes*  
common on beach ridges
- 92 *Suriana maritima* L.  
locally abundant on  
beach ridges

July 20 Southwest Cay  
on flat calcareous, mostly  
phosphatic soil.

- 93 *Suriana maritima* L.  
a few scattered clumps
- 94 *Heliotropium curassavicum* L.  
one plant on flat ground  
inland from east side.

leaves fleshy, flowers white

prostrate, forming a  
dense mat, leaves  
fleshy, subglossy,  
stems somewhat reddish,  
flowers rose-purple.

~~Caespitose~~ Caespitose, forming  
discrete clumps, culms  
erect; leaves glaucous

depressed plants all  
seen sterile.

prostrate, fleshy,  
flowers yellow 8-10 mm.  
across, stamens 20-30.

rounded gray bush,  
flowers white, fragrant.  
bush to 45 cm. tall  
flowers bright yellow.

shrub 1.5 m. tall; flowers  
bright yellow.

glaucous, fleshy, flowers  
white.



- 42795 *Tournefortia gnaphalodes* L.  
abundant on sandy  
beach ridges, less so on  
rocky ones
- 5 96 *Cordia sebestena* L.  
a few clumps on  
north west beach ridge
- 2 97 *Cyperus ligularis* L. P. Rich  
scattered locally on  
inner slopes and tops  
of sand ridges
- 2 98 *Paspalum distichum* L.  
scattered generally  
in island but not abundant
- 2 99 *Heliotropium curassavicum*  
on ledges of phosphatic  
conglomerate on south  
end of islet
- 42800 *Lesquerium portulacastrum* L.  
abundant on inner  
slopes above ponds and  
locally on flats
- 3 01 *Portulaca oleracea* L.  
abundant on flat  
sandy areas

July 21 - Middle Cay  
on flat calcareous, possibly  
phosphatic soil.

- 2 02 *Cyperus ligularis* L. P. Rich  
pure stands locally

10/2/62 p. 148

low rounded bushes  
1 m tall, gray.

shrubs 1-2 m tall,  
flowers scarlet.  
(said to have been  
introduced)  
erect clumps,  
leaves glaucous.

P. Rich  
spreading when young,  
forming erect clumps  
when older, all seen sterile.

prostrate, fleshy,  
forming extensive mats,  
stems reddish green,  
leaves sub-glossy, flowers  
rose-pink.  
prostrate, fleshy.

P. Rich  
erect clumps,  
leaves glaucous.



1962 Farnaces - Redus Cay

samples (collected) from p. 127

- 10 - mud from bottom of small pool in central depression of N.S. Cay (see p. 127)
- 11 - sand (phosphatic?) from under noddy nest in Sesuvium mat on inner slope of S.W. Cay
- 12 - similar sand from 0.5 m. away from nest, under Sesuvium.
- 13 - Phosphatic conglomerate from n.e. side of S.W. Cay from edge of ledge
- 14 - similar sample from S.W. corner of S.W. Cay.

~~July 22 - North East Cay~~  
(to p. 145)



July 21 - Northeast Cay  
 Several sandwicks and  
 royal terns resting on  
 south point.

Several swallows flying  
 over Sesuvium.

Along east coast beachrock  
 is continuous and  
 comes up to the edge of the  
 boulder beach and extends  
 under it. There are a scatter-  
 ing of fairly large boulders  
 generally lying on the  
 beachrock surface  
 and generally a belt  
 a meter or so in width  
 that is abraded white,  
 almost free of the algae  
 that cover it farther  
 out, probably from the  
 rolling back and forth  
 of the boulders when the  
 waves are rough. This  
 area is generally fairly  
 smooth. In some places are  
 conspicuous joint cracks,  
 with V-shaped grooves  
 formed  $\perp$  to strike ~~beachrock~~  
 more or less developed

Boulder ridge has  
 very large corals and  
 coral fragments, but  
 most seem to be single  
 colonies or pieces of single  
 colonies, rather than of  
 consolidated detritus or  
 of reef frame.

(photos Kod 4 begin)

62-6 begin

first 12: 20 of boulder  
 ridge, boulders, brown  
 zone with faint grooving  
 and a mass of consolidated  
 detritus with Littorina  
 Southward along road  
 are a number of large blocks  
 of consolidated detritus (photo)  
 lying at the bottom of  
 the boulder beach.

Sesuvium seedlings in  
 sandy pockets on top of the

seedlings of *Tournefortia*,  
*Portulaca*, fairly common  
 mostly on sand, but  
 some *Portulaca* also  
 on rubble.



ctd. from p. 117

10:30 am 6 1/2'

12:30 - 6 1/2'

2:10 am 6'

July 22 10:30 am 7-

Well log

0-20" pale dry sand  
some shells - pebbles  
(sample 15)

20-53 moist pale sand  
similar to above  
perhaps more ridges  
sample 16)

53-63" gravel, with much  
heropora cerucomis  
becoming looser  
sample and with large  
17 interstices downward.

63-72" gravel with  
little sand.

72" water (at 3 p.m.)

72-76" gravel  
under water

water sample 18  
(2 bottles)

(not ctd. from p. 144)



July 21 - Middle Cay  
 great flat area with  
 only a small depression  
 near northeast corner.

Sesuvium around  
 depression, on slopes  
 down to it. Another  
 patch of Sesuvium  
 half way to other end.  
 Patches of Cyperus between.  
 Most of islet covered  
 by a pure, open to closed  
 stand of Portulaca.

Periphery with Tournefortia  
 except a small stretch on  
 southeast.

Several dozen blue  
 faced boobies here  
 on ground a few brown  
 boobies, also.

Some Portulaca in the  
 Tournefortia scrub which  
 is rather open. In recent  
 deposited beach terraces  
 around w end. are  
 numerous Tournefortia  
 seedlings (photos).

(photos across island)  
 No beach ridge on s and  
 w sides. Cobble ridge,  
 not very high on east.  
 Here is a red flat with  
 lines of beach rock out  
 200 yards and extending

1 noddy (eggs)  
 1 Laughing gull (eggs)  
 a number of rusty terns  
 (one downy chick) (one egg)  
 south beyond point  
 suggesting that here  
 the islet is eroding away.  
 On the other side it is  
 being added to.

The cobble ridge has  
 a clipped seaward edge  
 and has some sand  
 in it about 4 dm. below  
 crest. The whole ridge  
 is not 1 m above h.t.

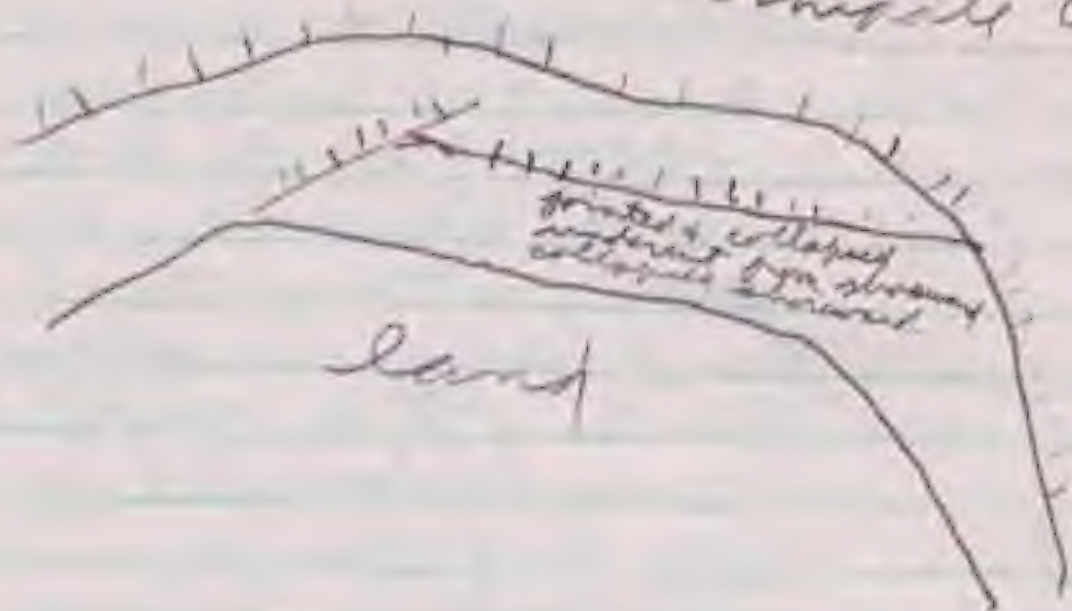
Inland from beach  
 ridge a depression  
 with brown soil and  
 Cyperus. Many crabs,  
 hermit crabs, a lizard  
 etc. This area is flooded  
 occasionally.

Patches of Cyperus  
 occasional between  
 Sesuvium and beach ridge.

Blue faced booby  
 feeding a fully grown,  
 fully feathered mostly  
 dark gray-brown young.  
 Many



beach rock on northern end  
muscle bed



- old from 138
- 42803 *Sesuvium* *portulacastrum* L.  
pure stands in low spots.
- 2 04 *Portulaca oleracea* L.  
dominant, pure stands  
over large areas where  
boobies nest.
- 2 05 *Suaeda maritima* L.  
very local in *Tournefortia* strip
- 2 06 *Tournefortia gnaphalodes* L.  
forming low scrub  
around periphery.

July 22 - Northeast Cay

- 2 07 (blue-green)  
gelatinous layer on  
bottom of highly saline pool

The largest part of  
the Cay is covered by *Portulaca*  
flat - a flat of sand <sup>or lower</sup> ~~and~~  
very slightly higher than  
the belt of *Tournefortia*  
along the shore. The sand,  
though white on top, is  
yellow-brown below (Lamp's 19).  
Blue faced boobies nest  
here in great numbers.  
In mid-afternoon there were  
a couple of dozen, by 5 pm.  
there were hundreds. *Portulaca*  
mats 2-4 dm. across  
are now almost touching to  
almost their diameter apart <sup>just</sup>  
prostrate, forming mats,  
fleshy, leaves sub-  
glossy; flowers rose purple.

shrub 1 m. tall



July 22 - Marly bottom  
of extremely saline  
ponds in depression

Profile

gelatinous layer  
hard crust

sample 20

no specimen no. 42807

soft somewhat friable  
layer with much  
humus

dark green brown

or brown or mottled,  
even blackish,

strong H<sub>2</sub>S odor

2-5 cm.

below this a stiff  
clay-like marl,  
beginning pale  
and more granular  
downward, a few  
shell and coral  
fragments, very  
easily broken by fingers

at about 8-10" numerous  
coral, algal, and shell  
fragments embedded  
in the marl (sample 22)

1 core taken with  
a can is sample 21  
Water sample from pond 23.

Crust suggests consolidation under  
these conditions.

Small shower at  
about 11:15. At the first  
few drops the land  
crabs came out of  
their burrows in swarms  
and crawled about  
in the heruvium,  
apparently taking  
drops of water from  
the leaves and putting  
them in their mouths.  
They stayed out as  
long as any water  
remained on the leaves.  
A few hermit crabs also  
were seen with the  
land crabs.

Turned over stones in  
low pit on wet marl  
in heruvium flat half  
way to south end from tent.  
Several big lycosids, black  
ants living with them  
the small white isopod-like  
millipeds with bush tail  
(these move rather rapidly and faintly),  
a small gray isopod, a fly (??) on  
scentworm, and a land crab.  
(not coll.)



July 23 → Kingston to Green Hills, up Hope River Valley  
 Slope up from Kingston has open vegetation varying on one hand to savanna, on the other to closed thicket or forest esp. in ravines. The more open areas are on slopes and ridges. *Panicum maximum* is dominant in the grass layer.

Montane sclerophyll from about 1900' to 4-5000'. Lower part largely dominated by *Acacia villosa*. Strong Andean affinity. *Baccharis*, *Latureja*, *Verbesina* (*Chaenocephalus*), etc. Where undisturbed forms a dense closed scrub, but here much burned and opened.

Above 2100' *Nelium* and *Tithonia* abundantly naturalized. *Gleichenia* local. *Erigeron Karwinskianus* common, naturalized. Higher up *Cecropia*, *Chusquea*

*Lida rhombifolia*  
*Vienna lobata*  
*Arundo donax*

*Plantago lanceolata*  
*Arthraxon hispidum?*  
*Impatiens adenophorum*  
*Cyperus brevifolius*  
*Rhynchos obtusifolius*

Widespread species:  
*Erigeron Karwinskianus*  
*Eugenia jambosa*  
*Catalpa longifolia*  
*Cinchona*  
*Lonicera japonica*  
*Cytisus scoparius*  
*Hydrangea*  
*Tibouchina semidecandra*  
*Hedyclium coronarium*  
*H. flavum*  
*Tropaeolum majus*  
*Prunus persica*  
*Impatiens sultana*  
*Cuphea platycentra*  
*Asparagus plumosus*  
*Drymaria cordata*  
*Tritoma crocosmaeflora*  
*Selaginella Kraussiana*  
*Adiantum raddianum* <sup>Presl</sup> (*cuneatum*)  
*Verbena bonariensis*  
*a. cuneatum* L. + F. not Fast. =  
*a. raddianum* Presl, Tent. Pter. 158, 1836  
*Pelargonium zonale* not aff.  
*Dahlia variabilis*  
*Coleus scutellarioides*  
*Plantago major*  
*Trifolium repens*  
*Youngia japonica*  
*Graphalium purpureum*  
*Thelypteris torresiana*  
*Buddleia japonica*  
*Datura "drosera"*  
*Salsola splendens*  
*Asapanthus africanus*



Along Newcastle, to divide is excellent undisturbed montane sclerophyll.

At divide much reforestation with various pines and podocarps, etc.

Hardwar gap

On north slope - rather undisturbed montane rain forest - mostly on steep slopes. Trees 5-8 m. tall, one tree layer. A dense but indistinct shrub layer. Epiphytes abundant, incl. orchids, bromads, ferns, mosses, hepatics. Tree ferns common, also Chusqueas, but not abundant enough to form tangles.

(photos - Kod. & 62-7 begin.)

Gleichenia common

Trees taller in ravine

Podocarpus

Dendropanax

Mangrovia vines common, some aroids -

Phyllanthoidium sp.?

Ravine  
but  
Rose Hill  
and  
Caledonia  
Peak

*Lepbalium*

a brown irregular tubes 1-1.5 dm. across, with numerous branches which are deflexed and have erect clavate ~~to~~ crimson inflorescences, both staminate and pistillate, mostly pistillate, covered by large fleshy scale-like caducous bracts; the seeds exserted from the fruiting masses, have a white fleshy caruncle, and carried off by ants, which eat the caruncle and leave the seed. A large colony of ants lives in the mass of plants. The whole mass is 3-4 dm. across. (photos)

Photos of Rose Hill - practically untouched montane rain forest, from s.e. slope of Caledonia Peak. (Portland Pas.)



July 23 - Green Hills, east of Hardwar Gap  
on moist road cut in  
montane rain forest

42808 *Coccoloba* *pubescens* A. DC.  
under low shrubs

2 09 *Phyllanthus* *erectus* DC.  
common on talus

2 10 *Eleocharis* *obovata* (HBK.) R. & S.  
in seepy place

1 11 *Youngia* *japonica* (L.) Presl  
common

1 12 *Spermatocoele*  
common

1 13 *Lycopodium* *repens* L.  
occasional

1 14 *Grammitis* *serpulata* (Sw.) DC.  
common locally

1 15 *Dybia* *pubescens* (A. DC.) Copel.  
local

same - roadside

1 16 *Juncus* *bufonius* L.

same - in garden

1 17 *Lonicera* *japonica* Thunb.  
spontaneous

1 18 *Cardamine* *hirsuta* L.  
spontaneous

July 23 along Newcastle Road  
below Driestown, St. Andrew Par

19 *Polypodium* *planchonii* (A. DC.) Kuhn  
epiphytic on trees in montane rain forest

3750' 1140m

prostrate, branches  
ascending, flowers  
purple.

culms terete, shorter  
ones erect, longer pendent

*Yapunta* (L.) Presl

*Stemodia*  
*pubescens* flowers white,  
hairy within.

3750' 1140m

3750' 1140m

L *Lonicera* *japonica* Thunb.  
twines, flowers  
white, turning yellow,  
very fragrant.  
flowers white.

2200' 670m



July 24 - Trail up Mt  
Horeb from Hardwar Gap

Ridge with scrub  
forest, gnarled and  
massy 4-8 m. tall  
Podocarpus, Hedysmum,  
Cyrtilla, Melastomaceae,  
etc., very irregular.  
Dense irregular shrub  
layer, tangled with  
Gleichenia.

Many Vriesea tanks,  
many ferns, a few Cyathus  
Sphragnum and other  
mosses on ground.  
Selaginella abundant

Miss M. - H. Sachat  
Pacific Vegetation Project  
c/o National Research Council  
2101 Constitution Ave., N.W.  
Washington 25, D.C.  
U.S.A.

Dear Marie-Hélène,

THE INSTITI  
KINGSTON

PLANTS OF TRINIDAD

Caroni Co.

Cyperus articulatus

Locality Caroni Swamp

Occurrence Locally abundant in open marshes  
along old canal in Rhizophora swamp

Date July 5, 1962 Alt. 0 m

Coll. F. R. Fosberg No. 42549

Remarks Erect, several stems from base



July 24 - Trail up Mt  
Horeb from Hardwar Gap

Ridge with scrub  
forest, gnarled and  
mossy 4-8 m. tall  
Podocarpus, Hedysmum,  
Cyrtia, Melastomaceae,  
etc., very irregular.  
Dense irregular shrub  
layer, tangled with  
Gleditsia.

Many Vriesea tanks,  
many ferns, a few Cyathus  
the  
nd.  
dent

Miss M. - H. Sachet  
Pacific Vegetation Project  
c/o National Research Council  
2101 Constitution Ave., N.W.  
Washington 25, D.C.  
U.S.A.

Dear Marie-Hélène,

SCIENCE MUSEUM  
THE INSTITUTE  
KINGSTON, JAMA

PLANTS OF TRINIDAD  
St. Andrew Co.

Utricularia

Locality Arlipo Savanna

Occurrence Common in dense grass in open  
wet grassland on gray silt soil

Date July 8, 1962 Alt. 35 m

Coll. F. R. Fosberg No. 42608

Remarks Flowers white with yellow median  
mark on palate



July 24 - Trail up Mt  
Horeb from Hardwar Gap

Ridge with scrub  
forest, gnarled and  
mossy 4-8 m. tall  
Podocarpus, Hedyosmum,  
Cyrtilla, Melastomaceae,  
etc., very irregular.  
Dense irregular shrub  
layer, tangled with  
Gleichenia.

Many Vriesea tanks,  
many ferns, a few Cyathus  
(other  
moss  
under)

Dear Marie-Hélène,

Miss M. - H. Sachet  
Pacific Vegetation Project  
c/o National Research Council  
2101 Constitution Ave., N.W.  
Washington 25, D.C.  
U.S.A.

SCIENCE MUSEUM  
THE INSTITUTE OF JAMAICA  
KINGSTON, JAMAICA, W.I.

20 May 1963



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Miss M. - H. Sachet  
Pacific Vegetation Project  
c/o National Research Council  
2101 Constitution Ave., N.W.  
Washington 25, D.C.  
U.S.A.

Dear Marie-Hélène,

Thanks for your recent letter. The Jamaican plants are now being sent; the delay was due to my slowness in completing the identifications, which in turn was caused by too many other things to do! The list of name is enclosed; I have indicated a few of which we would appreciate having duplicates. In one case (#42779) I have actually withheld a specimen needed for study, so for this perhaps you could just send a label.

Generally speaking, these plants were not dried as well as they should have been, and in some cases the leaves are detached. This would not ordinarily have happened, but at the time I was too occupied to supervise the drying as I should have, considering that the two boys were new to the work. They failed to realize that 40-watt bulbs did not provide enough heat, and I didn't find out they were not using the right (75-watt) bulbs until most of your material was already dried.

One thing that kept me very busy last fall was our acquisition of 36 new steel herbarium cases, thanks to a Rockefeller grant. This meant reorganizing the entire collection. The old wooden cases are still in good use for storage of unmounted material, duplicates, and supplies. A large additional room has been made available for this purpose, and for the first time we are really adequately housed, with plenty of space for expansion. The next major objective is air-conditioning! This is badly needed.

We have mounted and accessioned more than 4,000 sheets since you were here. One of the interesting collections that came in was a set of Bro. Alain's Puerto Rican plants.

I'm sorry not to have acknowledged receipt of the elephant books. They were very slow in coming, but in due course the boys got them and were delighted.

So far my summer plans are uncertain, but I may possibly come up to Washington and New York in August or September. I hope you will be around if I do. Please give my regards to Ray.

Sincerely yours,

*Dick*

George R. Proctor  
Botanist.

GRP/zl  
Encl.



\* = duplicate requested.

JAMAICAN PLANTS COLLECTED BY F. R. FOSBERG

July, 1962

Det. by G. R. Proctor

42629. *Cordia collococca* L.  
30. *Morinda roioe* L.  
31. *Phyllanthus nutans* Sw.  
32. *Boerhaavia erecta* L.  
33. *Phyllanthus latifolius* Sw.  
34. *Adiantum melanoleucum* Willd.  
35. *Heppiella corymbosa* (Sw.) Urb.  
36. *Phyllanthus amarus* Schum. & Thonn.  
37. *Borreria laevis* (Lam.) Griseb.  
38. *Euphorbia hypericifolia* L.  
39. *Lisianthus cordifolius* (L.) Griseb.  
42640. *Anthepphora hermaphrodita* (L.) Ktze.  
41. *Borreria laevis* (Lam.) Griseb.  
42. *Emilia*  
43. *Cuphea ciliata* (Sw.) Koehne  
44. *Pteris longifolia* L.  
45. *Rondeletia trifolia* Jacq.  
46. *Cissus microcarpa* Vahl  
47. *Heliotropium angiospermum* Murray  
48. *Muntingia calabura* L.  
49. *Cissus sicyoides* L.  
42650. *Cestrum*  
51. *Borreria laevis* (Lam.) Griseb.  
52. *Lobelia viridis* McVaugh  
53. *Cassia clarensis* (Brit.) Howard ? \*  
54. *Croton discolor* Willd.  
55. *Cyperus planifolius* L.C. Rich.  
56. *Rachicallis americana* (Jacq.) Ktze.  
57. *Echites umbellata* Jacq.  
58. *Mallotonia gnaphalodes* (L.) Brit.  
59. *Morinda roioe* L.  
42660. *Borreria verticillata* (L.) G.F.W. Meyer  
61. *Solanum racemosum* Jacq.  
62. *Morinda roioe* L.  
63. *Ernodea littoralis* Sw.  
64. *Croton discolor* Willd.  
65. *Strumpfia maritima* Jacq.  
66. *Citharexylum fruticosum* L.  
67. *Suriana maritima* L.  
68. *Conocarpus erecta* L.  
69. *Erithalis fruticosa* L.  
42670. *Jaquinia keyensis* Mez  
71. *Wedelia trilobata* (L.) Hitchc.  
72. *Parthenium hysterophorus* L.  
73. *Lourea vespertilionis* (L.f.) Desv.  
74. *Canavalia maritima* (Aubl.) Thou.  
75. *Euphorbia blodgettii* Engelm. ex Hitchc.  
76. *Phaseolus lathyrioides* L.  
77. *Cakile lanceolata* (Willd.) O.E. Sch.  
78. *Desmodium tortuosum* (Sw.) DC.  
79. *Euphorbia buxifolia* Lam.  
42680. *Borreria laevis* (Lam.) Griseb.  
81. *Spilanthes urens* Jacq.  
82. *Caesalpinia*  
83. *Sesuvium portulacastrum* L.  
84. *Thalassia testudinum* König  
85. *Phloxerus vermicularis* (L.) R.Br.  
86. *Borreria arborescens* (L.) DC.  
87. *Colubrina asiatica* (L.) Brongn.  
88. *Halimeda gracilis* Harvey ex J. Ag.  
89. *Halimeda goreauii* Taylor  
90. *Bryothamnion triquetrum* (Gmel.) Howe  
91. *Padina sanctae-crucis* Berg.  
92. *Turbinaria turbinata* (L.) Ktze.  
42693. *Gymnanthes elliptica* Sw.  
94. *Guaiacum officinale* L.  
95. *Exostema caribaeum* (Jacq.) R. & S.  
96. *Bursera simplicifolia* DC.  
97. *Rhacoma crossopetalum* L.  
98. *Piscidia piscipula* (L.) Sarg.  
99. *Sarcophagus laurinus* Griseb.  
42700. *Tabebuia riparia* (Raf.) Sandw.  
01. *Borreria*  
02. *Passiflora perfoliata* L.  
03. *Torrubia discolor* (Spreng.) Brit.  
04. *Cissus trifoliata* L.  
05. *Bauhinia galpinii* N.E. Br. ?  
06. *Anemia adiantifolia* (L.) Sw.  
07. *Scleria lithosperma* (L.) Sw.  
08. *Guettarda argentea* Lam.  
09. *Lantana camara* L.  
42710. *Portlandia grandiflora* L.  
11. *Croton corylifolius* Lam.  
12. *Ipomoea horsfalliae* Hook.  
13. *Gymnanthes elliptica* Sw.  
14. *Byrsonima coriacea* (Sw.) DC.  
15. *Tetrazygia pallens* (Spreng.) Cogn.  
16. (not found) *not used*  
17. (not found) *not used*  
18. *Salvia serotina* L.  
19. *Lasiacis divaricata* (L.) Hitchc.  
42720. *Borreria laevis* (Lam.) Griseb.  
21. *Scleria lithosperma* (L.) Sw.  
22. *Cheilanthes microphylla* Sw.  
23. *Cordia jamaicensis* I.M. Johnston.  
24. *Psychotria aff. dura* Griseb.  
25. *Stachytarpheta jamaicensis* (L.) Vahl  
26. *Eugenia* sp. nov.  
27. *Palicourea*  
28. *Senecio discolor* (Sw.) DC.  
29. *Ipomoea rubella* House  
42730. *Panicum*  
31. *Panicum aciculare* Desv.  
32. *Coccocypselum herbaceum* Aubl.  
33. *Cuphea parsonia* (L.) R.Br.  
34. *Sauvagesia brownei* Planch.  
(= *S. erecta* L. ?)  
35. *Gerardia albida* (Brit. & Penn.)  
36. *Acisanthera quadrata* Juss. ex Poir.  
37. *Paspalum*  
38. *Rhynchospora rariflora* (Michx.) Ell.  
(No Jamaican specimen in IJ !)  
39. *Scleria hirtella* Sw.  
42740. *Scleria ciliata* Michx.,  
var. *elliottii* (Chapm.) Fern.  
41. *Rhynchospora cyperoides* (Sw.) Mart.  
41. *R. microcephala* (Brit.) Brit.  
41. *R. fascicularis* (Michx.) Vahl  
42. *Scleria pterota* Presl  
43. *Cyrilla racemiflora* L.  
44. " " "  
45. *Centella erecta* (L.f.) Fern.  
46. *Borreria laevis* (Lam.) Griseb.  
47. *Desmodium barbatum* (L.) Benth.  
48. *Polygala paniculata* L.  
49. *Panicum parvifolium* Lam. ?

(Nos. 88-92 det. L. Green)



42750. *Fimbristylis complanata* (Retz.) Link  
 51. *Hypoxis decumbens* L.  
 52. *Scleria georgiana* Core  
 53. *Panicum stenodes* Griseb.  
 54. *Rhynchospora oligantha* A.Gray  
     var. *brevisetata* Gale  
 55. *Eleocharis mutata* (L.) R. & S.  
 56. *Fuirena umbellata* Rottb.  
 57. *Osmunda cinnamomea* L.  
 58. *Panicum zizanioides* H.B.K.  
 59. *Nepsera aquatica* (Aubl.) Naud.  
 42760. *Mayaca fluviatilis* Aubl.  
 61. *Buchnera elongata* Sw.  
 62. *Xyris jupicai* L.C.Rich.  
 63. *Eleocharis retroflexa* (Poir.) Urb.  
 64. *Panicum parvifolium* Lam.  
 65. *Andropogon bicornis* L.  
 66. *Tournefortia hirsutissima* L.  
 67. *Paspalum fimbriatum* H.B.K.  
 68. *Rhynchospora robusta* (Kunth) Boeck.?  
     (imature)  
 69. *Rhynchospora polyphylla* Vahl \*  
 42770. *Blechnum indicum* Burm.  
     (*B. serrulatum* L.C.Rich.)  
 71. *Eleocharis elegans* (H.B.K.) R. & S.  
 72. *Equisetum giganteum* L.  
 73. *Panicum maximum* Jacq.  
 74. *Emilia javanica* (Burm.f.) C.B.Rob.  
 75. *Buxus laevigata* (Sw.) Spreng.  
 76. *Cordia jamaicensis* I.M.Johnst.  
 77. *Lisianthus exsertus* Sw.  
 78. *Sphagnum*  
 79. *Lindsaea portoricensis* Desv. (\* -  
     specimen withheld - please send label)  
 42780. *Melochia villosa* (Mill.) F. & R.  
 81. *Casearia arborea* (L.C.Rich.) Urb.  
 82. *Eugenia wilsonella* F. & R., vel aff.  
 83. *Clethra occidentalis* (L.) Steud.  
 84. *Phyllanthus arbuscula* (Sw.) Gmel.  
 85. *Croton laurinus* Sw.  
 86-92 (not found)  
 93. *Suriana maritima* L.  
 94. *Heliotropium curassavicum* L.  
 95. *Mallotonia gnaphalodes* (L.) Brit.  
 96. *Cordia sebestena* L.  
 97. *Cyperus planifolius* L.C.Rich. \*  
 98. *Paspalum vaginatum* Sw.  
 99. *Heliotropium curassavicum* L.  
 42800. *Sesuvium portulacastrum* L.  
 01. *Portulaca oleracea* L.  
 02. *Cyperus planifolius* L.C.Rich. \*  
 03. *Sesuvium portulacastrum* L.  
 04. *Portulaca oleracea* L.  
 05. *Suriana maritima* L.  
 06. *Mallotonia gnaphalodes* (L.) Brit.  
 07. (?)  
 08. *Coccochypselum herbaeum* Aubl.  
 09. *Phyllanthus tenellus* Roxb.  
 42810. *Eleocharis elegans* (H.B.K.) R. & S.  
 11. *Crepis japonica* (L.) Benth.  
 12. *Borreria laevis* (Lam.) Griseb.  
 13. *Lycopodium reflexum* Lam.  
 14. *Grammitis serrulata* (Sw.) Sw.  
 15. *Dichaea pendula* (Aubl.) Cogn.  
 16. *Juncus bufolius* L.  
 17. *Lonicera confusa* DC.  
 18. *Cardamine hirsuta* L.  
 19. *Polypodium plumula* auctt., non H.B.W.  
 42820. *Pilea grandifolia* (L.) Blume  
 21. *Cobaea scandens* Cav.  
 22. *Pilea weddellii* F. & R.  
 23. *Nephrolepis pectinata* (Willd.) Schott  
 24. *Calceolaria chelidonioides* H.B.K.  
 25. *Galinsoga ciliata* (Raf.) Blake  
 26. *Cyperus* (Kyllinga) *tenuifolius*  
     (Steud.) Dandy  
 27. *Calceolaria* (sp. indet. - please  
     send name if possible !)  
 28. *Oxalis corniculata* L.  
 29. *Besleria lutea* L.  
 42830. *Isachne arundinacea* (Sw.) Griseb.  
 31. *Ctenosicyos pomiformis* (Macf.) Griseb.  
 32. *Selaginella denudata* (Willd.) Spr.  
 33. *Hymenophyllum lanatum* Fée  
 34. *Hymenophyllum polyanthos* (Sw.) Sw.  
 35. *Panicum glutinosum* Sw.  
 36. *Elaphoglossum latifolium* (Sw.) J.Sm.  
 37. *Palicourea alpina* (Sw.) DC.  
 38. (not found)  
 39. (not found)  
 42840. *Coccochypselum pseudotontanea* Griseb.  
 41. *Psychotria corymbosa* Sw.  
 42. *Grammitis graminea* (Sw.) Ching  
 43. *Hymenophyllum polyanthos* (Sw.) Sw.  
 44. *Thelypteris deltoidea* (Sw.) Proctor  
 45. *Asplenium alatum* H. & B. ex Willd.  
 46. *Ctenitis villosa* (L.) Copel.  
 47. (not found) *Asplenium*  
 48. *Peperomia swartziana* Miq.  
 49. *Piper fadyenii* C.DC.  
 42850. *Polypodium repens* Aubl.  
 51. *Peperomia alata* Ruiz & Pavon  
 52. *Polytaenium lineatum* (Sw.) J.Sm.  
 53. *Uncinia hamata* (Sw.) Urb.  
 54. *Grammitis cultrata* (Willd.) Proctor  
 55. *Trichomanes crispum* L.  
 56. *Danaea jamaicensis* Underw.  
 57. (lichen)  
 58. *Urera elata* (Sw.) Griseb.  
 59. *Trichomanes scandens* L.  
 42860. *Trichomanes rigidum* Sw.  
 61. *Peltapteris peltata* (Sw.) Morton  
 62. *Grammitis asplenifolia* (L.) Proctor  
 63. *Lobelia assurgens* L.  
 64. *Rhynchospora polyphylla* Vahl  
     (sens. lat.)  
 65. *Ilex macfadyenii* (Walp.) Rehder  
 66. *Podocarpus urbanii* Pilger  
 67. *Dendrophthora opuntioides* (L.) F. & R.  
 68. *Schradera involucrata* (Sw.) K.Schum.  
 69. *Haenianthus incrassatus* (Sw.) Griseb.  
 42870. *Clusia havetioides* (Griseb.) Pl. & Tr.  
 71. *Eugenia biflora* (L.) DC., juvenile  
 72. *Eupatorium critoniforme* Urb.  
 73. *Hedyosmum arboreum* Sw.  
 74. *Relbunium* (*Galium*) *hypocarpium*  
     (L.) Hemsl.  
 75. *Fragaria vesca* L.  
 76. *Juncus platyphyllus* (Wieg.) Fern.  
 77. *Ageratum houstonianum* Miller  
 78. *Nephrolepis exaltata* (L.) Schott  
 79. *Urechites lutea* (L.) Brit.



42880. *Piper discolor* Sw.  
 81. *Cheilanthes microphylla* Sw.  
 82. *Polypodium plumula* auctt., non H.B.W. 44  
 83. (fungus on dead insect)  
 84. *Adiantum fragile* Sw.  
 85. *Guazuma ulmifolia* Lam.  
 86. *Digitaria sanguinalis* (L.) Scop.  
 87. *Bunchosia media* (Ait.) DC.  
 88. *Borreria laevis* (Lam.) Griseb.  
 89. *Pilea microphylla* (L.) Liebm.
42890. *Scleria lithosperma* (L.) Sw.  
 91. *Polypodium heterophyllum* L.  
 92. *Lasiacis divaricata* (L.) Hitchc.  
 93. *Rauvolfia nitida* Jacq.  
 94. *Tillandsia setacea* Sw.  
 95. *Chiococca alba* (L.) Hitchc.  
 96. *Polypodium latum* (Moore) Sodiro  
 97. *Portlandia grandiflora* L.  
 98. *Piper discolor* Sw.  
 99. *Ocotea robertsonae* Proctor (ined.) \*
42900. *Psychotria nervosa* Sw.  
 01. *Guettarda argentea* Lam.,  
 var. *glabrata* Urb.  
 02. *Borreria laevis* (Lam.) Griseb.  
 03. (not found)  
 04. *Drymaria cordata* (L.) Willd. ex R. & S.  
 05. *Euphorbia hirta* L.  
 06. *Tragia volubilis* L.  
 07. *Forsteronia floribunda* (Sw.) A. DC.  
 08. { *Pilea grandifolia* (L.) Blume  
*Polypodium "pectinatum" X "plumula"*  
 09. (not found)
42910. *Gyrotaenia spicata* (Wedd.) Wedd.  
 11. { *Cheilanthes notholaenoides* (Desv.) Max.  
*Cordia bullata* (L.) R. & S.  
 12. *Polypodium piloselloides* L. 13a  
 13. *Pilea crassifolia* (Willd.) Blume  
 14. *Anthurium scandens* (Aubl.) Engl.  
 15. *Borreria laevis* (Lam.) Griseb.  
 16. *Asparagus plumosus* Baker  
 17. *Cynoglossum amabile* Stapf & Drum.  
 18. *Anemia adiantifolia* (L.) Sw.  
 19. *Thelypteris reptans* (J.F. Gmel.) Morton
42920. *Geaeria acaulis* Sw.  
 21. *Thelypteris serra* (Sw.) R. St. J.  
 22. *Rondeletia cymulosa* Proctor (ined.)  
 23. *Rondeletia sylvestris* S. Moore  
 24. *Rondeletia cymulosa X sylvestris* ? ined.  
 25. *Hippobroma longiflora* (L.) G. Don  
 26. *Polystichum echinatum* (J.F. Gmel.) C. Chr.  
 27. *Phyllanthus arbuscula* (Sw.) Gmel.  
 28. *Acrosynanthus jamaicensis* Howard & Proctor  
 29. " " " "
42930. *Eugenia axillaris* (Sw.) Willd.  
 31. *Alvaradoa jamaicensis* Benth.  
 32. *Portlandia coccinea* Sw.  
 33. *Psychotria asiatica* L.  
 34. *Eugenia monticola* (Sw.) DC.  
 35. *Erithalis harrisii* Urb.  
 36. *Rhytidophyllum tomentosum* (L.) Mart.  
 37. *Pilea* sp. nov.  
 38. *Tectaria heracleifolia* (Willd.) Underw.  
 39. *Cheilanthes notholaenoides* (Desv.) Max.,  
 intergrade toward *C. microphylla* Sw.
42940. *Asplenium erosum* L.  
 4241. (?) *lichen*  
 44. *Adiantum cristatum* L.  
 45. " " "  
 44. *Polypodium angustifolium* Sw.  
 45. *Guettarda argentea* Lam. \*  
 46. *Portlandia coccinea* Sw.  
 47. *Lonchocarpus*  
 48. *Coccoloba krugii* Lindau  
 49. *Solanum (Lycianthes) stellatum*  
 Jacq.
42950. *Pavonia soabra* (Vogel) Stehle &  
 Quent.  
 51. *Chiococca parvifolia* Wulfschl.  
 52. *Eugenia* sp. nov. ? (would like  
 to borrow this) \*  
 53. *Asplenium jamaicense* Jenm.  
 54. *Polystichum harrisii* Maxon  
 55. *Ayenia laevigata* Sw.  
 56. *Acideton urens* Sw.  
 57. *Selaginella hispida* (Willd.) A. Br.  
 58. *Mandevilla torosa* (Jacq.) Woodson  
 59. *Eugenia clarendonensis* Urb.
42960. *Tournefortia maculata* Jacq.  
 61. (Myrtaceae - gen. & sp. indet.)  
 62. *Lagetta lintearia* Lam.  
 63. *Neea nigricans* (Sw.) F. & R.  
 64. *Daphnopsis occidentalis* (Sw.) Kr.  
 & Urb.  
 65. *Nephrolepis exaltata* (L.) Schott  
 66. *Piper arboreum* Aubl., sens. lat.  
 (*P. verrucosum* Sw. ?)  
 67. (not found)  
 68. *Mimosa bimucronata* (DC.) Ktze.  
 69. *Stachytarpheta jamaicensis*  
 (L.) Vahl
42970. *Digitaria horizontalis* Willd.  
 71. *Stachytarpheta mutabilis*  
 (Jacq.) Vahl  
 72. *Emilia javanica* (Burm.f.) C. B. Rob.



July 20 - 7 ... 1. mt

gap

ab  
A

man,  
car,  
can  
truck  
with

gather  
they  
and  
beat



MAP OF

# TRINIDAD

With Roads showing Distances  
Telephone Pay Stations  
Gas Stations  
etc

TRINIDAD AUTOMOBILE ASSOCIATION  
94 FREDERICK STREET  
FORT-OF-SPAIN  
TRINIDAD  
B.W.I.  
TELEPHONE 3445



July 24 - 7 - 2nd mt  
 9:45



YOU CAN BE SURE OF SHELL.

Goreau collected *Halophils*  
*Baillonis* to a depth of sand  
 240 ft on ~~smooth~~ <sup>eroded</sup> ~~bottoms~~  
 on both coasts of Jamaica  
 on outer slopes.



July 24 - Trail up Mt.  
Horeb from Hardwar Gap

Ridge with scrub  
forest, gnarled and  
massy 4-8 m. tall  
Podocarpus, Hedyosmum,  
Cyrtia, Melastomaceae,  
etc., very irregular.  
Dense irregular shrub  
layer, tangled with  
Glechhonia.

Many Vriesea tanks,  
many ferns, a few Cyathus  
Sphragnum and other  
mosses on ground.  
Selaginella abundant.

Goreau collected Halophila  
Baillonis to a depth of <sup>about</sup> ~~about~~ 240 ft  
on both coasts of Jamaica  
on outer slopes.



July 24 - Between Green Hill and  
Hardwar Gap, along road.  
in montane rain forest

42820 *Pilea* (w. sp. m. + by Proctor)

*P. grandifolia* (L.) Bl.

21 *Cobaea scandens* Sw.

22 *Pilea weddellii* F. & R.  
on steep road cut

23 *Nephrrolepis pectinata* (Willd.) Schott  
on steep road cut

24 *Calceolaria delidontada* HBK.  
on wet roadside

25 *Galinsoga parviflora*  
common on roadside

26 *Cyperus brevifolius*  
occasional on roadside

27 *Calceolaria pinnata* L.  
rare on wet roadside

28 *Oxalis corniculata* L.  
common on roadside

July 24 - ravine on north side  
of Hardwar Gap, Portland Parish  
in montane rain forest

29 *Besleria lutea* L.  
common

30 *Isachne* (w. sp. m. + by Proctor) Gilg  
occasional

31 *Carex* (w. sp. m. + by Proctor) Gilg  
rare

unbranched suffruticose  
herb, 1 m. tall; leaves  
strongly bullate, purple  
beneath.

extensive vine, climbing  
over bushes; flowers  
purple.

stems fleshy, red;  
leaf veins strongly  
impressed above.

Schott

nodes enlarged;  
corolla light yellow.  
rays white.

*C. ulata* (R. & P.) Bl.

heads green

*C. (C. ulata) (C. ulata) (C. ulata)*

erect; corolla pale yellow.

shrub 1.5 m. tall,  
calyx pale orange; corolla  
white, fruit deep orange.

stem elongate, sprawling,  
herbaceous vine, flowers white.



- 42832 *Polypodium denudatum* (Willd.) Kuhn  
3 abundant on banks  
along trail
- 1 33 *Hymenophyllum polyanthum*  
epiphytic on tree trunks
- 3 34 *Hymenophyllum lanatum*  
epiphytic on tree trunks
- 2 35 *Hymenophyllum abruptum* Hook.  
epiphytic on tree trunks
- 1 36 *Flex (sub. mon. troch.) puberula* Hook.  
~~tree~~ rare
- 1 37 *Panicum glutinosum* DC.  
rare
- 1 38 *Claphoglossum latifolium* (Sw.) T. G. Smith  
epiphytic on tree trunks
- 3 39 *Palicourea alpina* (Sw.) DC.  
occasional
- 6 40 *Coccyzium pseudotortanum*  
occasional on bank above trail
- 2 41 *Psychotria (palicourea) angustata*  
occasional
- 1 42 *Grammitis* ~~sp.~~ (Sw.) Kuhn  
rare, epiphytic on tree trunks
- 1 43 *Hymenophyllum polyanthum*  
common, epiphytic on tree trunks
- 3 44 *Thelypteris deltoidea* (Sw.) Presl  
occasional on bank  
above trail

July 24 - Ravine between  
Rose Hill and Caledonia Peak  
in montane rain forest

- 3 45 *Asplenium alatum* H. B. K.  
local

procumbent, plane  
parallel to ground surface.

small tree 4 m. tall,  
sterile.

culms somewhat bluish,  
spikelets glutinous.

small tree 5 m. tall;  
thyse orange red, buds  
yellow, corollas whitish,  
prostrate; flowers  
white, fruit blue.

shrub, thysees purple,  
corollas whitish.

fronds curved downward

north of Hardwar Gap,

Portland Parish

4000'

Willd.



- 42146 *Ctenitis villosa* (L.) Copl.  
occasional
- 3 47 *Scybalium jamaicense* <sup>det. P. R. S.</sup>  
occasional, root parasite.
- 3 48 *Peperomia ovata* (L.) Copl.  
epiphytic on tree trunk
- 7 49 *Piper fadyenii* (L.) DC.  
occasional
- 1 50 *Polypodium repens* (L.) Kuhn.  
occasional, epiphytic on tree trunk
- 1 51 *Peperomia akala* P. & P.  
epiphytic on tree trunk
- 3 52 *Polypodium polypodioides* (L.) Kuhn.  
epiphytic on tree trunk
- 1 53 *Uncinia hamata* (L.) Willd.  
common on banks along trail
- July 24 - ~~southwest~~ slopes  
of Caledonia ~~Peak~~ Peak, north of Hardwar Gap,  
Portland Parish  
in montane rain forest
- 1 54 *Grammitis mollis* L.  
epiphytic on tree trunk
- 1 55 *Trichomanes ~~argyrea~~* L.  
terrestrial, on bank along trail
- 1 56 *Danaea ~~argyrea~~* (L.) Kuhn.  
terrestrial, locally abundant
- 1 57 *Parmelia*  
epiphytic on tree trunk
- 3 58 *Urena ~~alba~~* (L.) Gaertn.  
occasional
- 4 59 *Trichomanes scandens* L.  
epiphytic on tree trunk
- 1 60 *Trichomanes ~~argyrea~~* L.  
terrestrial

frond very large,  
stipe hollow.

(copy done 1-2-2 on 1/1/55)

forming loose mat,  
leaves subfleshy,  
shrub ~~3~~ m. tall; spikes  
erect.

leaves rather thin.

4000 - 4300

1500 - 1500

cultivate (with <sup>fruit</sup>)

pendant.

slender, small tree or shrub  
4 m. tall, stems and  
leaves stinging somewhat.



- 42861 *Peltapheris peltata* (Sw.) Mett.  
 rare, epiphytic on fallen tree trunk  
 4 62 *Grammitis* *explanata* (L.) Presl  
 common, epiphytic on tree trunks

July 24 - Trail up Mt. Hope  
 from Hardwar Gap, St. Andrew Par.  
 in low gnarled  
 montane rain forest on ridge

- 1 63 *Lobelia assurgens*  
 rare in open spot  
 2 64 *Rhynchospora polyphylla* Vahl (Sw.) Mett.  
 common  
 3 65 *Ilex* *pubescens* (Walt.) Holden  
 rare  
 4 66 *Podocarpus* *pitcairni*  
 common  
 3 67 *Dendrothoa opuntioides* (L.) Fawc. & Rend.  
 occasional, parasitic on *Cyrtella*  
 3 68 *Schradera* *exotica* (Gmel.) Standley  
 occasional, epiphytic in  
 trees  
 2 69 *Palicourea psychotria corymbosa* Sw.  
 occasional  
 3 69a *Hemiphanthus* *impressus* (L.) G. Don  
 occasional or rare  
 70 *Clusia* *humboldtii* (Jacq.) Mett. & Th.  
 occasional  
 1 71 *Eugenia bicolor* var. *E. biflora* (L.) Trin.  
 rare  
 1 72 *Eupatorium* *altissimum* Vahl  
 rare

- erect, unbranched herb  
 1 m. tall, stems and  
 main leaf veins purple;  
 - corolla dull dark purple  
 stems weak, ascending  
 - at least distally.  
 slender tree 5 m. tall,  
 leaves larger on leading  
 - shoots; fruit black.  
 small tree, bushy in  
 - appearance, 8 m. tall.  
 joints somewhat 1/2 marked?  
 - flattened; fruit red.  
 shrub, somewhat  
 vine-like, fruit immature,  
 - disks strongly rugose  
 shrub; thyrses purple;  
 - corolla whitish.  
 tree 3 m. tall, corolla  
 - white, mostly fallen.  
 small tree.  
 shrub 1.5 m. tall; sterile.  
 shrub 3 m. tall.



412873 *Hedyosmum* <sup>adpressum Sw.</sup>  
 very common

~~74 *Galium hypocarpium*~~

July 24 - Hardwar Gap  
 St. Andrews Par.

4 74 *Galium hypocarpium* L.  
 occasional on road cuts

2 75 *Fragaria* <sup>virginiana L.</sup>  
 common on roadside banks

3 76 *Juncus tenuis* Willd. <sup>T. puberulus (Willd.) Fernald</sup>  
 common on ~~road~~ grassy  
 road cut

2 77 *Ageratum houstonianum*  
 common on road sides.

July 26 - Maggoty, on  
 Black River, St. Elizabeth Par.  
 on steep hill of rough  
 limestone

3 78 *Nephrolepis* <sup>puberula (L.) Mett.</sup>  
 common on road cut

2 79 *Echites* <sup>umbellata (L.) Mett.</sup>  
 common in secondary scrub

4 80 *Piper* <sup>discolor Sw.</sup>  
 in open secondary scrub

1 81 *Cheilanthes* <sup>multiflora Sw.</sup>  
 in rock crevices in opening

3 82 *Polypodium* <sup>plumbeum (L.) Mett.</sup>  
 common in shade

1 83 (fungus)  
 on old fern rachis

aromatic  
 shrub 3 m. tall, ripe  
 fruit translucent  
 white.

12000  
 3950'

tangled vine; flowers  
 pale green; fruits orange,  
 fleshy.

— flowers white; fruit  
 red, achenes in shallow  
 pits.

— small tufts

11000

aromatic; flowers  
 mauve.

150 m

fronds erect.

*lactiflorus* twiner; flowers  
 bright yellow.

— shrub 1.5 m. tall;  
 berries white.

fronds arcuate



July 27 - train trip from  
Kingston to Montego Bay  
just out of Kingston -  
open scrub forest of *Prosopis*  
for a short way, then  
a village with houses -  
gardens - trees landscape.  
then open pasture with  
scattered bamanas. Then  
along harbor saline flats,  
locally marshy on seaward  
side of track, on other side  
partly village but  
pasture. Then on left low  
mangrove with locally  
Batis flats, a bit of  
mangrove on right but  
mostly sugar cane. Then  
sugar cane on right also,  
locally with rows of  
coconuts and bamanas.

Gregory Park.

Banana plantation on left,  
sugar on right. Then rows  
rows of large blocks of  
cane and bananas, rows of  
*Musa textilis* as wind breaks.  
Small patches of bamanas.  
Then ~~extensive~~ extensive area of  
solid banana - some thickets  
along tracks and near scattered  
houses.

New cane fields, scattered  
trees - bamana, *Artocarpus*, mango.

*Arenaria (arroy)*

*Alocasia macrorrhiza*

*Nepenthes exaltata*

*Antecreasia humilis*

*Anthurium (common red)*

*Caladium bicolor*

*Vesitelia merillii*

*Graminum b. azoricum (infoliate)*

*Pachyrrhizus litoralis*

Widespread plants -

*Mambot esculenta*

*Ricinus communis*

*Musa textilis*

*Moringa oleifera*

*Panicum maximum*

*Zinnia elegans*

*Acalypha wilkesiana*

*Xanthosoma sagittifolia*

*Euphorbia hirta*

*Erioseba spinosa?*

*Cynodon dactylon*

*Amaranthus viridis*

*Lida acuta*

*Tecoma stans*

*Euphorbia glomerata*

*Bidens radiata*

*Parthenium hysterophorum?*

*Chloris inflata*

*Carica papaya*

*Pithecolobium dulce*

*Ipomoea batatas*

*Malva viscosa arborea?*

*Kalanchoe pinnata*

*Thevetia peruviana*

*Tabernaemontana divaricata*

*Cordyline fruticosa*

*Colocasia esculenta*

*Psidium guajava*

*Spathodes campanulata*

*Sesuvium edule*

*Amaranthus spinosus*

*Cenchrus echinatus*

*Gomphrena globosa*



Villages with artocarpus, Prosopis, Delonix, Mangifera  
small fields, fallow or  
in maubot, maize,  
bananas, grass, etc.  
scattered trees, thickets,  
hedgerows.

Edges of Spanish Town, with  
low Prosopis scrub, scattered  
bamanae, Prosopis and  
several other large spreading  
trees. Xanthosoma along ditches.

W. of Spanish Town - mainly  
sugar cane. Rows of coconut  
and other trees. On left a  
large block of Prosopis scrub  
then more cane. B. block of  
Prosopis savanna on it. Then  
more cane. block of savanna  
on left, cane south of it.  
Hartlands station. More cane.  
Cane is in all stages, but  
mostly rather young,  
some just planted.

scrub forest in distance  
on left and on low hills  
far to right, then closer on  
flat ground on right, then still  
closer, then an extensive  
area on it. of a mosaic of  
scrub forest, open scrub forest,  
and savanna. cane still  
on left. savanna of  
bamanae and Prosopis.

Bushy Park.

Open forest of Prosopis and  
occasional bamanae  
with fairly luxuriant grass,  
fading to savanna.  
Some cane locally. Little  
grazing in savanna. Some  
almost closed Prosopis  
scrub forest. Savanna  
and ~~is~~ flat topped scrub  
forest more ~~less~~ general.  
Villages with gardens.  
Prosopis scrub.

Old Harbour.

The grass in all this lowland  
is a coarse bunchy type,  
possibly Panicum maximum,  
but grazed down.

Some cane, bananas, and  
citrus. Then more open  
Prosopis forest and savanna.  
Some fields on left.

Bodley jet.

Hills on right with scrub  
forest - wooded bottom land  
just before them. Then tall  
Prosopis or Acacia scrub with  
scattered trees. Route climbs  
around base of hills. Some  
clearings partly overgrown  
in scrub forest.

Rolling low hills with  
dense scrub and clearings  
with pasture and cultivation.



Mosaic of patches of scrub, fields, various stages of regrowth, pasture etc. on left extensive very poor sized plantation. Hills are limestone but relief is low, rounded. Road extends several miles on left savanna and scrub on it.

Then generally irregularly scrub-covered low limestone hills both sides.

More road on both sides.

More low hills with dense scrub and clearings. The scrub and scrub forest on these hills is broad-leaf, no *Prosopis* or *Acacia*, except on <sup>very</sup> flat areas between hills.

Hills are lower, more cleared, with many *Bignonia*, *Cocos*, *Artocarpus*, *Delonix*, mango, *Casipouaria* etc. Then a large river, Rio Minho. May Pen, a fair sized town.

Gallery forest and bamboo along river, cultivation on flood plain, scrub forest on bluffs - then low rounded hills with sugar cane on left, scrub on right, dense to open. Then flat ground

pasture and scrub savanna.

Muirhead Avenue and intersection with new highway scrub forest and savanna. Local cultivation of maize, etc.

Gallery forest along stream. Pasture and savanna, large citrus orchard on it. young trees planted very close.

Pasture with many large trees, broad leaf.

Four paths.

Cleared low hills, broad valley with citrus orchard with scattered *Cocos*, then savanna.

Higher limestone hills to north. Maize fields, scrub, pastures, scattered *Cocos*, ragged second growth on flat ground.

Rock Halt. Hills come closer to track. Bamboo. *Pithecellobium*, young regrowth and pasture, scrub forest mosaic

Track follows foot of limestone hills. These mostly wooded - many fan palms, *Cecropia*, maize, bananas, then large



cane plantation on flat ground.  
 leave base of hills. Pastures  
 + canefields. ~~limestone~~  
~~hills on top~~ junction.  
 Clarendon Park &

Sugar cane on it.

Small river. Sugar cane  
 with many trees - citrus,  
 Cecos, Blighia, etc.

Tree and garden landscape  
 Artocarpus, Musa, mango,  
 Blighia, citrus, Theobroma,  
 Chrysophyllum, Cecos,  
 Mangifera, Calba, Cecentia,  
 Spondias, Samanea, some  
 coffee, etc.

Limestone hills with  
 tunnels, above fruit tree  
 assemblage between them.  
 Artocarpus abundant.  
 Epiphytes, esp. Rhipsalis,  
 on bananas. Cecropia common  
 higher mountains on right.

Mts. on left, also (May Day)

Rather wide valley of  
 rolling low hilly ground  
 bet. mts. dominated by  
 this fruit tree landscape.  
~~Pointe Peres~~

Valley with cultivation, fruit  
 trees. Track climbs around  
 hills on it. Clearings,  
 pastures, thickets.  
 Fruit tree landscape in

valley on left.

Climbing up into limestone  
 hills - partly wooded,  
 partly cleared, fruit  
 trees abundant around  
 houses.

Pteris longifolia is very  
 abundant on all  
 limestone cuts.

Valley opens on right.  
 Generally wooded in  
 bottom, slopes cleared  
 in a shifting agriculture  
 patchwork.

Track skirts this, up  
 onto a rolling, hilly upland  
 here pasture, some thickets,  
 some fruit trees incl. Cecos.

Maize, yams, banana, etc  
 in gardens.

Track skirts south  
 top of lower part of  
 the valley noted above,  
 where it is narrower,  
 more or less V-shaped. ~~Track~~  
 sides in shifting cult.  
 and pasture. Where  
 bottom is fairly wide it  
 is grassy or in poor citrus  
 orchard. Thickets.

Panicum maximum  
 covers much of slopes.  
 but weedy and tending to  
 grow up to scrub. The



gentler slopes here are red, probably bauxitic soil. The rock is limestone. Slopes on both sides a mixture of grass, sparse scrub, thicket. Cultivation of maize, yams etc. local on lower gentle slopes, also on gentle places on higher slopes. Thickets and scrub broadleaf with strong microphyllous tendency, some *Bumelia sumariba*.

North side becomes steeper, more densely forested, with side gentle slope and mostly grass (*Panicum maximum*) and secondary regrowth scrub and some large trees, mostly scattered. - *Cecropia*, *Ficus*, *Artocarpus* etc. locally forming a forest, mostly open. Epiphytes conspicuous on some trees.

Valley widens and track goes down into it. Mostly cultivated and in pasture, some fruit trees. Cult. esp. maize. Williamsfield.

Citrus orchards on gentle north slope. ~~Track crosses~~ To north side. Mosaic of thicket and grassy clearings. Large bauxite works, some mining. Kendall.

Grassy slopes with many large trees. Then rather gentle karst, mostly grassy with some cultivation and thicket, higher hills forested. Stones piled up ~~as~~ in cult. fields and pastures. Some stone walls.

*Nephrolepis cf. bisinata* abundant locally. Patches of sweet potato.

Large pastures on gently rolling broad valley bottom. Some thicket, bamboo, heliconias, scattered trees.

Hills on south partly wooded, mt. on north also. Track climbs up this rolling valley bottom. Citrus orchard. Grass and wooded hill landscape.

Some large trees, thicket. Very green. Quite a few cattle. Valley a broad strip of mostly grass, hills on each side forested.

Grove place.

Valley becomes narrower and more wooded.

Track goes north into a more pronounced karst.



Mosaic of wood, pasture, regrowth, cultivation - maize, yam, citrus. Hills wooded. Stone walls and stone piles common. Much sparse <sup>open</sup> scrub. More gentle topography. Maize, citrus, banana, sweet potatoes, yam.

## Green Vale

Then a mostly wooded haust, some gentler slope in pasture or maize. Small citrus orchards.

Higher limestone ranges on either side.

Becomes more gentle and more open. Large Ciba trees. *Cecropia* common. *Pinnas* abundant in forest. Many epiphytes, esp. *Boehmeria*, on some trees. *Bocconia* common in hedge rows, etc.

## Green Hill?

*Hibiscus elatus* (maka) common in valley. breadfruit also. *Pithecolobium dulce* where valley gets broader. Becomes a rolling plateau or basin. Breadfruit abundant.

## Duck Pond Halt.

Fruit tree association. Coconuts open forest appearance.

Open terrace - cult. citrus orchard then scrubby forest and thicket

partly microphyllous. Trams abundant.

Wide valley with rolling hills, some small cane fields, valley mostly open. maize thicket.

## Balacava.

Citrus orchard. ~~lots~~ large trees in valley. Coconuts, bananas.

Valley widens to north - large flat ~~bottom~~ bottom is sugar plantation.

Hilly country along track to west. clearing, cultivation. large flat valley bottom on left in cane plantation. Track skirts hills on right of valley, then across flat plantation. Small mogotes in north part. Heavily wooded Union Halt. and tangled with vines. Valley bottom very flat. Clumps of bamboo scattered in cane fields.

Then pasture and then fruit tree landscape, ground rather rolling.

Silvoh. Soil very yellow.

More flat cone land on right several small knolls.

Rolling pasture on left.

Surrounding limestone hills



mostly wooded, but  
some clearing

Valley bottom becomes  
rather rolling. Can only allow  
Appleton. flat land.

Guavas common. *Spathodes*  
also. *Gynerium* along canal,  
but not abundant.

Track follows narrowing  
flat valley bottom.

Rolling grassy hills on left  
Mogote hills high on right.

Valley pinches out between  
grassy karst hills. Some  
cane on this on left. Mostly  
pasture.

Black River. Then broad rolling  
grassy valley bottom  
with river meandering  
in it. Guava thickets.

July 27 - Maggoty

limestone hill above  
river. Secondary scrub  
of ~~Guajava~~ <sup>Guajava</sup>, *Pantanea*, *Haematoxyla*  
etc. with many vines,  
incl. *Tragia* sp. which  
stings painfully.

*Adiantum* and *Polypodium*  
common on rocks.

*Kalanchoe*, *Digitaria*  
on soil on ledges.

July 28 - Maggoty

Rough limestone hill -  
low forest, trees up to about  
3 m. tall, 15 cm dbh. canopy  
incomplete and irregular.  
Vines very abundant -  
*Clitorococca ~~radicosa~~ <sup>alba</sup>* is  
a woody scramble  
with backward pointing  
branchlets, sometimes  
almost spinescent.

Ferns common on ground  
and on tree trunks. Shrub  
layer 1-3 m, of "*Codiaeum*"  
*Piper*, etc. *Vriesea* and  
*Tillandsia* on rocks and  
in trees. Limestone is very  
pitted and dissected.

This is evidently  
secondary vegetation, as  
there are remains of stone  
walls and across on  
the opposite slopes as  
some small corn patches  
and recent clearings  
on equally steep rock  
slopes. There seems to be  
no soil at all.



1962 Jamaica  
(from 6.168)

- 42884 *Adiantum fragale* Sw  
4 abundant ~~to~~ shade  
in pits and crevices
- 4 85 ~~Quazuma~~ *Quazuma ulmifolia* Lam.  
common in secondary forest
- 3 86 *Digitaria horizontalis* ?  
common in openings
- 2 87 *Hippocratea*? *Hippocratea media* (H.B.K.) W.
- 1 88 *Spermacoce* *Mossia laevis* (Lam.) *S. confusa* Hall & Gillis  
rare in openings
- 1 89 *Pilea microphylla* (L.) Willd.  
common on earth on ledges
- 2 90 *Scleria lithosperma* (L.) Sw.  
occasional in openings

July 28 - Maggoty, St. Elizabeth Parish  
in thick second growth  
forest on rough limestone hill

- 4 91 *Polypodium heterophyllum* L.  
very common on tree trunks
- 3 92 *Lasiacis laxa* *Lasiacis divaricata* (L.) W. & A.  
occasional
- 4 93 *Croton wilsoniana* *C. wilsonii* Greenbark  
most abundant shrub in undergrowth
- 1 94 *Tillandsia tenuifolia* T. *T. stricta* Sw.  
common, epiphytic *T. setacea* Sw.
- 6 95 *Chlorococca alba* (L.) Hitchc.  
abundant

*P. lutea* (Vern.) Seem

- 1 96 *Polypodium phyllitidis*  
occasional

small tree; fruits  
immature.  
decumbent to ascending  
*Stemmatococcus* (L.) Seem.

erect flowers pinkish  
white.

400m

creeping, closely appressed  
to bark.

culms sprawling in  
bushes, up to 2 m. or more long.  
shrub 1-2 m. tall (or more).  
staminate flowers white,  
somewhat caespitose,  
flowers white.

extensive woody vine,  
branchlets somewhat  
reflexed, becoming somewhat  
spinose on old wood; ripe  
fruit fleshy, thick, immature  
ones flattened.  
fronds erect or almost so.



July 12 - Glasgow area,  
above Auchtermuchty  
in Cockpit country  
tangled low forest  
with many lianas,  
some ferns, on rough  
limestone. More vertical  
than horizontal surface  
(photos)

July 13 - Christiansia  
In waste places in town  
and in gardens  
*Cynoglossum cf. amabile*  
*Protaecium majus*  
*Paspalum conjugatum*  
*Petunia*  
*Impatiens balsamina*

*Mayum indicum*  
*Pennisetum purpurascens*  
*Canis spectabilis*  
*Paspalum bibracteatum*  
*Capsicum frutescens*  
*Dioscorea alata*

Southward  
*Mimosa pudica*  
*Cycas revoluta*  
*Foeniculum vulgare*  
*Melinis minutiflora*  
*Grevillea robusta*  
*Stachytarpheta mutabilis*  
*Cordia javanica*  
*Clerodendrum fragrans*  
*Thunbergia alata*  
Rangoat Cave 1500'

Barbecue Bottom  
1750'

July 17 Trip. Christiansia - Albert Town,  
Barbecue Bottom.  
route ~~is~~ over incline of  
slates & conglomerate -  
almost completely  
denuded.

Tony Town (photos) 2750'

Just south of Fletton (photos)  
crossing 2250'  
Albert Town  
breadfruit, mangoes  
barronae, coffee

Burnt Hill - Parrelawney  
Extremely dissected  
karst, made up of  
pinnacled limestone  
1900-2000', extreme  
solution features  
cockpits - sinkholes with  
red soil in them (photos)  
Covered by a low tangled  
forest extremely rich  
in ~~the~~ Euphorbiaceae, Myrtaceae,  
etc. Clusia 2 sp. Quercus,  
ferns, Rubiaceae.  
Hard agglomeration  
of iron oxide weathered  
out in coral, like shape  
cliffs but with good  
strong footholds and  
hand holds. Myriad of  
land shells.



42877 *Portlandia grandiflora* L.  
rare

2 78 *Piper amatagi* Sw.  
common

4 99 (Lam.) *Ocotea robusta* Pringle (1967)  
rare

~~42900~~ same - edge of tangled  
scrubby forest.

42900 *Psychotria nervosa* Sw.  
rare

5 01 *Guettarda argentea* Lam. var.  
common → *glabrata* Lam.

2 02 *Spermacoce suffruticosa* Jacq.  
common

2 04 *Drymaria cordata* (L.) Willd.  
common in grass

(see next page for 2905 & 06)

July 27 - Glasgow area, above  
Auchtermuchty,

in tangled forest on rough limestone bluff

4 07 *Fosteroria floribunda* (L.)

4 08 *Pilea grandifolia* (L.) Jacq.  
common

2 09 *Polypodium* "*puberulum* x *plumula*"

3 10 *Gyneria spicata* (Willd.) Willd.

4 11 *Cordia bullata* (L.) Jacq.  
common on road cut

1 12 *Cheilanthes notholaenoides* (L.) Pringle  
occasional on road cut

shrub 3 m tall; leaves  
glossy.

shrub 2 m tall,  
spikes pendent.  
small tree; fruit  
immature.

shrub 1 m tall; flowers  
white; fruit immature.  
shrub 2 m tall; ripe  
fruit purple, fleshy (mostly  
immature)

ripe fruits caducous  
on sticky pedicels.

Peak of  
Manchester  
400 m.

"*sp.*" vine, climbing in trees;  
flowers white.

branched shrub, stems  
thick, green, leaves bullate,  
glossy; panicles red.  
fronds erect

(said to be apogamous triploid form)

shrub; <sup>fruiting</sup> bracts  
white, fleshy.

shrub 1 m tall; corolla  
white; fruit red.

Flower



- same - open ~~rocky~~ feature  
 42905 *Euphorbia hirta*?  
 rare in  
 3 06 *Tragia volubilis* L.  
 common in

July 28 - Christians, Manchester Parish  
 on dissected limestone hills  
 900'

- 42912a  
 3 13 *Polygodium pilosella* ~~puberula~~ L.  
*Pilea campicola* (Willd.) HBK.  
 shaded in fissure

- 3 14 *Anthurium standens* (HBK.) Engl.  
 on cliff

- 2 15 *Spermacoce* ~~hirsuta~~ *puberula* Jacq.  
 in shade of cliff

- 1 16 *Asparagus plumosus*  
 naturalized around cliffs

same - vacant lot, limy soil

- 2 17 *Cynoglossum* ~~acutifolium~~ *acutifolium* DC.  
 naturalized

- 2 18 *Anemone adiantifolia* (L.) DC.  
 roadside bank

July 29 - Barbecue Bottom

6 mi. n. of Albert Town, Cockpit Country, Trelawny Par. Trelawny  
 on limestone cliff  
 1250'

- 7 19 *Thelypteris repens* ~~repens~~ (L.) Presl.  
 roadside banks, abundant,

- 7 20 *Gesneria acaulis* Sw.  
 abundant on vertical faces

- 6 21 *Thelypteris serrata* L.  
 locally common on road bank

- 4 22 *Rondeletia* ~~repens~~ *repens* (L.) DC.  
 occasional on vertical faces

prostrate

twining; stinging hairs

climbing on limestone  
 rocks

shrub much-branched,  
 stems brown; leaves firm,  
 rugose; panicles red.

caespitose, clumps  
 of short erect stems;  
 spikes ~~flowers~~ purple.  
 scrambling; flowers white.

climbing to several  
 meters; fruit green.

flowers bright blue.

flowers scarlet

shrub up to 1 m. tall,  
 flowers whitish.



- 42923 *Rondeletia* (mispl. *proctori*)  
occasional on vertical faces
- 24 *Rondeletia* *agrippina* *proctori*? *proctori*  
occasional on vertical faces
- 25 *Hippobroma longifolia* (L.) DC.  
common along roadsides
- 26 *Polystichum echinatum* L.  
rare, in shade below road
- 27 *Phyllanthus* *obovatus* (L.) J. R. & S.  
occasional in forest below road

July 29 - Ramgoat cave  
n. of Albert Town, Trelawny Parish  
on steep embankment below road on  
limestone cliff

- 28 *Passiflora foetida* L. *proctori* *proctori*  
occasional
- 29 " "  
occasional
- 30 *Eugenia ocellata* (Sw.) Willd.  
rare
- 31 *Abouardia jamaicensis* Benth.  
occasional
- 32 *Portlandia coccinea* Sw.
- 33 *Psychotria asiatica* L.  
rare
- 34 *Eugenia martiniana* (L.) DC.  
rare
- 35 *Rondeletia* *evulata* *proctori* *proctori*  
occasional
- 36 *Rhytidophyllum tomentosum* (L.)  
common in open.

erect shrub 1 m. tall.

shrub; ~~erect~~ perhaps a  
hybrid bet. 42922 + 42923 acc. of Proctor.  
flowers white  
locally called "Madame Fate".

small tree 4 m. tall;

flowers red.

erect shrub 3 m. tall.

erect shrub 3 m. tall,

flowers white, ~~etc.~~

shrub, flowers white

erect sparsely branched  
shrub 1.5 m tall, fruit red.  
bark very bitter

shrub

shrub, fruit immature

shrub 3 m. tall; fruit  
immature

shrub, 3 m. tall; flowers white.

shrub about 1 m. tall;  
leaves rugose;  
fls. greenish yellow.



- 42937 *Pilea* sp. new  
 2 common  
 2 38 *Tectaria hexactifolia* (Willd.) Under  
 occasional  
 4 39 *Cheilanthes rotholzianoides* ? (Willd.) new  
 common on rocks along road

July 29 - Burnt Hill,

<sup>Trabonny</sup>  
 Cockpit Country, Trelawny Parish  
 on hill of deeply dissected

- 1 40 *Asplenium* erosum L.  
 rare  
 1 42 (Lichay)  
 rare  
 2 43 *Adiantum* textum L.  
 occasional  
 1 44 *Polypodium* angustifolium Sw.  
 occasional  
 5 45 *Quettarda argentea* Lam.  
 rare n local  
 1 46 *Portlandia coccinea* Sw.  
 occasional n cliff  
 5 47 *Lonchocarpus* (comb. nominis) parvifolia ?  
 common  
 3 48 *Coccoloba* brevifolia Under  
 occasional  
 4 49 *Solanum stellatum* Jacq.  
 rare  
 1 50 *Pavonia* scabra (Willd.) Walt. & Ait.  
 common parvifolia  
 2 51 *Chiococca* parvifolia (Willd.)  
 occasional

leaves rugose, glossy,  
 panicle red.

new, with large leaves L. - parvifolia Sw.

1800 - 5000 ft  
 2000'

hard limestone

~~shrub~~ small tree 5 m tall,  
 fruit branching  
 conspicuously terminaloid,  
 fruit immature.

shrub  
 extensive liana,  
 flowers bright purple,  
 fruit immature.  
 vine

shrub, fruit not quite  
 mature  
 small tree

twines; fruit immature.



- 42952 *Eugenia sachetiae* Proctor (type)  
occasional
- 2 53 *Asplenium jamaicense* Tr. & B.  
common in rock pits and crevices
- 1 54 *Polystichum karwinskii* Maxon  
occasional in shaded limestone crevices
- 1 55 (near *Pluchea* *Symphoricarpos* Proctor & Webster)  
rare *Ayenia laevigata* Sw.
- 2 56 *Arundinaria urens* Sw.  
common
- 1 57 *Belaginelles hispida* (Willd.) A. Br.  
rare in pit in rock
- 1 58 *Editha? Mandevilla laevis* (Jacq.) Kuntze  
local
- 4 59 *Eugenia claudoviana* Urb.  
occasional
- 3 60 *Heliotropium* *Truncatella maculata* Jacq.  
rare
- 3 61 *Pimenta obscura* Proctor (det. 1978)  
rare
- 1 62 *Loxtha hirtensis* Lam.  
rare
- 4 63 *Neea jamaicensis* (Sw.) F. & A.  
rare
- 5 64 *Daphnopsis blanchetii* (Sw.) Kuntze  
occasional
- 3 65 *Nephrolepis hirsutula* (L.) Kuntze  
common in wet open places
- 1 66 *Piper abnorme* A. Br. *maculata* (L.) Steud.  
rare
- July 29 - just south of Stettin  
Trelawny Parish
- 1 67 *Paspalum fimbriatum*  
roadside

shrub; fruit immature

bluish green

proliferating at tips.

shrub

slender tree; stinging.

pale green

flowers yellow, conspicuously  
contorted

shrub

shrub; fruit green.

~~small~~ shrub, aromatic  
when broken.  
sterile shrub.~~small~~ small tree;  
fruit scarlet.

shrub, flowers green

fronds erect.

shrub, sterile



42968 *Mimosa* *lucida* (DC) Wieg.  
very common on eroded land

July 29 - Tony Truen, northwest of  
Wait-a-Bit, Trelawney Parish  
on eroded road bank on  
non-calcareous soil

42969 *Stachytarpheta* *jamaicensis* (L.)  
occasional

70 *Digitaria* *hirsuta* (L.)  
common

71 *Stachytarpheta* *mutabilis* (L.)  
common

72 *Ernilia* *jamaicensis* (Burm.f.) Rob.  
common

shrub 4 m. tall, diffusely  
branched, flowers white.

2750+

100 m

much-branched;  
flowers dark purple.  
sprawling

flowers

turning  
with age.Standard Form 63  
November 1961

USA Gen. Reg. No. 27

## MEMORANDUM OF CALL

TO-

 YOU WERE CALLED BY- YOU WERE VISITED BY-

Trillo's 9240 25th PP NE

n. A. Rd &amp; Graham Rd. 832-9300

TELEPHONE:

Number or code

Extension

 PLEASE CALL WAITING TO SEE YOU WILL CALL AGAIN WISHES AN APPOINTMENT RETURNING YOUR CALL IS REFERRED TO YOU BY:

LEFT THIS MESSAGE:

Received By-



42968 *Mimosa* *luminosa* (DC) Ktze  
very common on eroded land

July 29 - Tony Turn, northwest of  
Wait-a-Bit, Trelawny Parish  
on eroded road bank on  
non-calcareous soil

42969 *Stachytarpheta* *jamaicensis* (L.)  
occasional

70 *Digitaria* *longistylis* Willd.  
common

71 *Stachytarpheta* *mutabilis* (Trin.)  
common

72 *Ernilia* *javanica* (Burm.f.) Rob.  
common

shrub 4 m. tall, diffusely  
branched, flowers white.

2750'  
840 m

Valid much-branched;  
flowers dark purple.  
sprawling

Valid branched herb; flowers  
old-rose pink,  
flowers brick red, turning  
~~purplish~~ purplish with age.



1962 Jamaica

July 31. Air-leaving Jamaica  
 Patch reefs and cays outside  
 the Palisades - a long and  
 slightly complicated spit  
 extending out from ~~west~~ <sup>east</sup> of  
 mouth of Hope River, made  
 up almost entirely of  
 river sand and gravel.  
 Has mangroves along harbor  
 side beyond airport, and  
 covering wider lobes.  
 Sandy places near  
 airport covered by a  
 pure stand of *Tribulus*  
*cistoides* with unusually  
 large flowers.

West of Kingston harbor,  
 inside the spit that  
 extends out to enclose it,  
 is a very low saline  
 flat, partly bare, partly  
 covered by *Batis*, and  
 with considerable  
 mangroves, extending  
 well inland in the north  
 part of the west shore.

Toward north coast  
 is a considerable area  
 of "semi-cockpit" country,  
 where the mogotes are  
 definitely separated by  
 flat bauxitic(?) areas which  
 form a sort of network (this  
 must be near Clarendon) of  
 grassy ground.

The reefs along this north  
 coast are narrow, except  
 at indentations, and fall  
 off rapidly seaward but  
 with considerable sandy  
 bottom between broken  
 reef ridges parallel to shore.

Reefs in Montego Bay  
 w. of end of air strip  
 have outer parts of striking  
 parallel grooves & ridges  $\perp$  to  
 coast.



12. 12. 1884



