Record

Nov. 1945 —

Collection number book
of F. R. Fosberg

No. 24225 — 24941

Descriptive passages
rearranged for files 1979
B. Decker

Pages

CAROLINE ISLANDS

<u>Truk Islands:</u> Moen I., near Mt. Tonaachau, Old village of Mechetiu, new location of Mechetiu, saddle bet. island and peninsula called Sabuk	24410-24428	54-59
- Moen I., slopes of Mt. Tonaachau	24429-39	58-61
- Tol Island, Mt. Uiniboet, Fason village	24440-24476a	62-69
- Udot, Folomo, Manitu village, old mission garden, Monua (Malua) village	24476-24502	68-77
- Tefan Island, between Mt. Chukuson and Mt. Chakuchap, Mesa village..	24503-24522	76-81
- Dublon, slopes of Mt. Tolowan	24523-24556	82-89
<u>Hall Islands:</u> Nomwin Atoll, Nomwin I.	24557-24608	92-107
<u>Truk Islands, General</u>		108-115
- Moen I.	24609-24613	116-117
- Pis I., n. side of Truk Bai	24614-24690 ..	118-133
- Moen I., saddle bet Mt. Teroken and Mt. Tonaachau	24691	132-134
Flats near Baker Dock, Moen I.	24692-24710	136-141

MARIANA ISLANDS

<u>Tinian, Mt. Lasso, "Palm Beach", Lake Hagoya, south end of Tinian I., plateau 1 mi. n. of Tinian, Camp Churo, near Marpo Wells.....</u>	24711-24738	142-151
- s. end of Masalog Ridge, Tinian City, near Marpo Wells, Mt. Lasso, near Lake Hagoya...	24739-24808	150-163
- Marpo Valley, near Marpo Wells	24809-24849	164-173
- w. side of Island "Palm Beach", Mt. Lasso, Yellow Beach, North Air Field, Camp Churo	24850-24941	172-200

* * *

Collection and Field Note Book

No. 14

Nov. 25, 1945 - June 9, 1946

(Nos. 24225 - 24941)

VIRGINIA

Fairfax Co., Lee Boulevard north of Fairfax	24225-24231	2-3
Along Turkeycock Run, n. of Fairland	24232-24236	2-5
Washington, D.C.	24237	4-5
Arlington, Potomac River	24238-24239	4-5
Fairfax Co., Sleepy Hollow	24240-24249	4-9

ILLINOIS

Bond Co., Mulberry Grove	24250-24260	8-11

PENNSYLVANIA

E. of Washington	24261	
(with G. Van Schank)		10-11

VIRGINIA, Sleepy Hollow	24262	10-11

CALIFORNIA

Stanislaus Co., 2 mi. n. of Turlock	24263-24272	12-13

HAWAIIAN ISLANDS

Oahu, trip by car		14-15
Waikane-Schofield Trail, Schofield side, summit ridge, Kahana side, Waikane Valley	24273-24284	16-19

MARSHALL ISLANDS

Eniwetok Atoll, Eniwetok I., Igurin Islet, Japtan Islet	24285-24344	20-35
Aomon Islet, Eniwetok I.	24345-24372	34-43
Enge Islet	24373-24409	44-53

Pages

CAROLINE ISLANDS

Truk Islands: Moen I., near Mt. Tonaachau, Old village of Mechetiu, new location of Mechetiu, saddle bet. island and peninsula called Sabuk	24410-24428	54-59
- Moen I., slopes of Mt. Tonaachau	24429-39	58-61
- Tol Island, Mt. Uniboet, Fason village	24440-24476a	62-69
- Udot, Folomo, Manitu village, old mission garden, Monua (Malua) village	24476-24502	68-77
- Tefan Island, between Mt. Chukuson and Mt. Chakuchap, Mesa village	24503-24522	76-81
- Dublon, slopes of Mt. Tolowan	24523-24556	82-89
Hall Islands: Nomwin Atoll, Nomwin I.	24557-24608	92-107
Truk Islands, General		108-115
- Moen I.	24609-24613	116-117
- Pis I., n. side of Truk Bai	24614-24690	118-133
- Moen I., saddle bet Mt. Teroken and Mt. Tonaachau	24691	132-134
Flats near Baker Dock, Moen I.	24692-24710	136-141

MARIANA ISLANDS

Tinian, Mt. Lasso, "Palm Beach", Lake Hagoya, south end of Tinian I., plateau 1 mi. n. of Tinian, Camp Churo, near Marpo Wells	24711-24738	142-151
- s. end of Masalog Ridge, Tinian City, near Marpo Wells, Mt. Lasso, near Lake Hagoya	24739-24808	150-163
- Marpo Valley, near Marpo Wells	24809-24849	164-173
- w. side of Island "Palm Beach", Mt. Lasso, Yellow Beach, North Air Field, Camp Churo	24850-24941	172-200

* * *

Collection and Field Note Book

No. 14

Nov. 25, 1945 - June 9, 1946

(Nos. 24225 - 24941)

	<u>Pages</u>
VIRGINIA	
Fairfax Co., Lee Boulevard north of Fairfax	2-3
..... 24225-24231	
Along Turkeycock Run, n. of Fairland	2-5
..... 24232-24236	
Washington, D.C. 24237	4-5
Arlington, Potomac River .. 24238-24239	4-5
Fairfax Co., Sleepy Hollow 24240-24249	4-9
ILLINOIS	
Bond Co., Mulberry Grove .. 24250-24260	8-11
PENNSYLVANIA	
E. of Washington ... 24261	
(with G. Van Schank)	10-11
VIRGINIA, Sleepy Hollow	10-11
24262	
CALIFORNIA	
Stanislaus Co., 2 mi. n. of Turlock	12-13
..... 24263-24272	
HAWAIIAN ISLANDS	
Oahu, trip by car, ...	14-15
Waikane-Schofield Trail, Schofield side, summit ridge, Kahana side, Waikane Valley ..... 24273-24284 ...	16-19
MARSHALL ISLANDS	
Eniwetok Atoll, Eniwetok I., Igarin Islet, Japtan Islet	20-35
..... 24285-24344 ...	
Aomon Islet, Eniwetok I. 24345-24372 ...	34-43
Enga Islet	44-53
..... 24373-24409 ...	

Collection and Field Note Book

No. 14

Nov. 25, 1945 - June 9, 1946

(Nos. 24225 - 24941)

	Pages
VIRGINIA	
Fairfax Co., Lee Boulevard north of Fairfax	24225-24231 2-3
Along Turkeycock Run, n. of Fairland	24232-24236 2-5
Washington, D.C.	24237 4-5
Arlington, Potomac River ..	24238-24239 4-5
Fairfax Co., Sleepy Hollow 24240-24249.....	4-9
ILLINOIS	
Bond Co., Mulberry Grove ..	24250-24260..... 8-11
PENNSYLVANIA	
E. of Washington ...	24261
(with G. Van Schank)	10-11
VIRGINIA, Sleepy Hollow	24262 10-11
CALIFORNIA	
Stanislaus Co., 2 mi. n. of Turlock	24263-24272 12-13
HAWAIIAN ISLANDS	
Oahu, trip by car, ...	14-15
Waikane-Schofield Trail, Schofield side, summit ridge, Kahana side, Waikane Valley	24273-24284 16-19
MARSHALL ISLANDS	
Eniwetok Atoll, Eniwetok I., Igarin Islet, Japton Islet	24285-24344 20-35
Adon Islet, Eniwetok I.	24345-24372 34-43
Enge Islet	24373-24409 44-53

1	Beregisman	Fimbriate
2	Ujos	Eragrostis am.
3	Kalekalek	Kalekalek aubryanthus
4	Belle	belle Ipomoea
5	Uken	nan Mounds
6	Koro	nan (Massachusetts)
7	Koro	nan Cordia
8	Ujos aitolh	ujos aitolh Lepturus
9	marro	ujos marro ~~Lepturus~~ Thunberg

10 Ysa kullala Ysa kullala Duglana

11 Matok matok Marham

12 Kernal kernal Parnia

13 Kernal kernal Postulans

14 Kuo Kuo Lila

15 Kmar kmar Kmar Kmar

16 Matok astok matok astok Marham

17 Matok Matok Matok Matok

18 Kmar Kmar Kmar Kmar

19 Matok Matok Matok Matok

20 Matok Matok Matok Matok

21 Matok Matok Matok Matok

22 Matok Matok Matok Matok

23 Matok Matok Matok Matok

24 Matok Matok Matok Matok

25 Matok Matok Matok Matok

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. John A. Sherman
FROM : J. H. Pritchard
SUBJECT: Collection of Miscellaneous Pouch

DATE: May 14, 1948

^{These} are seven specimens of Pouch from specimens from the U. S. G. collection. The specimens belong to the U. S. National Institute of Health in the collection. I will appreciate your attention to any that are desirable. Particularly I would like to see for the old specimens with the existing body.

Donor

~~Donor~~

Donor Smith

Donor Smith

X collecting
stations

Tihian.

X collecting stations

Nov. 1945 —

Collection number book
of F. R. Fosberg

No. 24225 — 24941

Descriptive passage
described for film
B. D. D. D.

4

got
strongly colored from tank
provisional notes about
insulation or movement
in a way from the top of
the tank
Cappuccino (or from the top of the
Cappuccino)

1945 - Virginia

Nov. 25 - Lee Boulevard

north of Fairfax
gentle slope wooded principally
with *Fagus grandifolia*
24225 *Selaginella apoda*

Dec. 3 - Sleepy Hollow, 1 mi.
s. of Falls Church, Fairfax Co.

26 *Quercus phellos* L.
edge of pasture in cleared
bottom land

Dec. 3 - 2.3 mi. s. of main
intersection, Fairfax, Fairfax Co.
dense pine forest (about 30 years old)
with little underbrush, gentle slope.

27 *Lycopodium complanatum* var. *flabelliforme*
small patch

28 *Polystichum acrostichoides*
occasional

29 *Chimaphila maculata*
common

30 *Chimaphila umbellata*
local

31 *Mitchella repens*
abundant

Dec. 3 - along Turkeycock Run,
1/3 mi. n. of Fairland, 6 mi. s. of
Alexandria, Fairfax Co.
Magnolia bog (Proc. Bot. Soc. Wash.)

Fairfax Co.

prostrate, pale green

tree 20 m. tall, 12 dm. thick

prostrate, extensively
creeping, sterile.

rhizome erect, fronds
prostrate or ascending.

erect from prostrate
underground rhizome, leaves
dark green, central portion
whitish.

erect from prostrate underground
rhizome, leaves dark green,
glossy.

prostrate, dull, dark
green, berries scarlet.

sphagnum on white gravel
oozing water

1945 - Virginia - D.C.

24232 *Lycopodium obscurum*
common locally, large patches

2 33 *Lycopodium lucidulum*
rare, local.

4 34 *Alnus serrulata* Willd.
common

3 35 *Rhus vernix*
common

3 36 *Magnolia virginiana*
common, characteristic
Tree of this type of bog.

Nov. 26 - Washington, D.C.
12th + E Sts. S.W.

in edge of lawn along sidewalk
37 *Polygonum*

Dec. 8, 1945 -

Bird Sanctuary

Potomac River, Arlington
thicket at edge of slough

38 *Ailanthus altissima*

39 *Platanus occidentalis*

Dec. 9, 1945 - Sleepy Hollow, 1 mi. s.
of Falls Church, Fairfax Co.,
thickly wooded bottom-land,
low second-growth woods.

5 40 *Amelanchier*

6 41 *Acer rubrum*

6 42 *Liquidambar styraciflua*

Fairfax Co.

erect from prostrate
underground rhizomes,
spike straw colored.

erect, dark green

shrub 3 m. tall

small tree 4 m. tall

small tree 6 m. tall,
a few leaves persisting,
white beneath.

fls. pink.

small sapling

small tree 4 m. tall, 4 cm. thick,
bark smooth, exfoliating.

small shrubby tree, 3 m. tall.

small tree, 4 m. tall

small tree 6 m. tall, branches
green

not checked
labeled & typed
HPL

1945 - Virginia

1946

Dec. 30, 1945 - same

24243 Morus

44 Viburnum prunifolium
common

-1946-

Feb. 3 Roaches Run
Bird Sanctuary, Potomac
River, Arlington Co.

45 Ailanthus altissima
roadside thicket

March 10 Sleepy Hollow, 1 mi.
S. of Falls Church, Fairfax Co.

3V 46 Catalpa
bushy old field

6V 47 Crataegus [Discarded, sterile, winter specimen]
scattered trees in pasture

48 Xylem
on dead logs of Acer rubrum,
Quercus palustris, Ulmus americana

Fairfax Co.

7

sapling, ~~to~~ much branched, 3 m. tall
tree 5 m. tall, 12 cm. thick,
surrounded by bushy
~~and~~ root sprouts.

small colony, probably
a clone, of saplings of
various ages, 1-5 or 6 years,
fasciated, but only toward
the end of each season's
growth, the fasciations
of various forms.

sapling 3 m. tall, freely
branched.
much branched small
tree 4 m. tall, bark ^{light} gray,
spines shiny dark brown,
buds reddish.
black paint-like patches
on bark, black markings
in wood.

no 8 checked
labels typed
1946 - Virginia - Illinois

~~24249~~ March 17 - Sleepy Hollow 1 1/2 mi.
s. of Falls Church, Fairfax Co.
24249 *Goodyera pubescens*
14 wooded slope, deciduous trees

Mar. 31 - Mulberry Grove,
(4 mi. w. of Vandalia), Bond Co. Ill.
Open road cut, bushy ravine
and edge of woods
34 50 *Erythronium album*
road cut

34 51 *Dicentra*
edge of woods

21 52
edge of woods
11 53 *Staphylea trifoliata*
edge of woods

41 54
wooded ravine
21 55 *Claytonia*
woods and wooded ravine,
common

24 56 *Dentaria*
wooded ravine, occasional

11 57 *Anemone*
wooded ravine, common

44 58 *Phlox divaricata*
woods, rare on flattish
ground and in ravine

9

leaves glaucous-green, variegated
with white.

bulb very deeply buried,
leaves variable in width
blue-green with variable
purple marking, buds
shell-pink, flowers
white.

leaves glaucous, corm
pink, flowers white.
flowers white.

bush, flowers white

flowers white

corm somewhat flattened,
stem decumbent at base,
leaves somewhat fleshy,
flowers white with pink
veins.

rhizome noduliform with
large segments, fls. white.
flowers quite pink

stoloniferous, flowers
purple.

1946 - Illinois - Penna. - Va.

- 24259 *Antennaria plantaginifolia*
 31 common on roadside barbs
 2160 *Cercis canadensis*
 occasional in woods

- April 2, 1946 - 3 mi. e. of
 Washington, Pa.
 61 *Corydalis flavula*
 black ground, possibly
 burned some time back,
 under roadside trees, rare.

- April 14 - Sleepy Hollow, 1 mi.
 s. of Falls Church, Fairfax Co.
 62 *Berberis thunbergii*
 wooded bottom land, well
 established

forming considerable
 patches
 shrub, calyx red,
 corolla pink.

flowers yellow

straggling shrub 1 m. tall,
 fls. cream, bronzed without.

1946 - ~~Vigginia~~ Calif.March 17 - ~~Shelby~~ 10 flocks, 11/14
mi. S. of Fall Church, Fairfax Co.

2

April 20 - ^{2 mi. N. of} Turlock, Stanislaus Co.
cultivated ground around
dwelling, watered, sandy loam

24263

Poa

common weed, sun or shade

64 Malva

common weed, sunny places

65 Acacia verticillata Willd.
cultivated66 Sequoia sempervirens Endl.
cultivated, around drain67 Hedera helix L.
escaped from cultivation,
established.68 Vinca major
escaped from cultivation69 Oxalis
escaped from cultivation, common.70 Oxalis
escaped from cultivation, common71 Oxalis cernua
escaped from cultivation,
common72 Arminchia
abundant in field

petals glabrous, pinkish,
emarginate, little if any
longer than calyx.
straggly pungent shrub
- 3 m. tall, fls. yellow.
~~small~~ young tree 6 m. tall
heavy woody vine, leaves
dimorphic.

vine, flowers blue-violet

corms thick, tuberous, multi-
plying by offsets. flowers
bright pink with purple
lines toward center.

corms thick, tuberous, multi-
plying by offsets. flowers
white. Probably a sport
from #24269.

stoloniferous, small plants
from bulbs, flowers bright
butter yellow.

flowers orange.

1946 - Oahu

April 27 - Driving around Lanikai, Kailua, up over Nuuanu Pali, down Nuuanu Valley & around Honolulu - notes on distribution of introduced plants.

Lambucus sp. - rare in 1937 - only noted in open air theater at University, now fairly common in cultivation around Honolulu.

Asystasia gangetica - noted in 1937 as established near University campus in a vacant lot - now one of the common weeds in Lanikai, Kailua and Honolulu, not up very high on Kailua-Honolulu road. Both purple and white forms noted, but purple much more common.

Paederia foetida - common along Nuuanu Pali road and even in Nuuanu Valley.

Eupatorium adenophorum - common along Nuuanu Pali road.

Catharanthus roseus - Established in Kailua.

Verbesina encelioides - in the thirties only seen near Molsueia and Pearl Harbor - now one of the common weeds in Kailua and many parts of Honolulu.

Spathoglottis plicata - is evident now everywhere where there is any amount of rain. Pali rd., Waikane, Manoa, etc. Common.

Messerschmidia argentea - common around Pearl Harbor, planted by Navy (Don Anderson).

1946 - Oahu

April 23 - Waikane - Schofield
Trail, Schofield side,24273 *Zanthoxylum* bushy forest, ridge top 2400-2500'24274 *Gouldia*75 *Gouldia*76 *Gouldia terminalis*
(coriacea with st. influence of tylosa)

Apr. 23 - same summit ridge

77 *Gouldia terminalis* var. *coriacea*
bushy windswept crest 2600-2800'
lee side of78 *Gouldia st-johnii* (st. contaminated
by *G. term.* v. *coriacea*)
windward side of79 *Gouldia st-johnii*
windward side of80 *Gouldia*

with heavy oily fragrance when broken,
tree 5 m. tall, flowers white,
- fragrant. (note small sepals)
- mass coll. 1 twig from a
tree, flowering where
possible. (with #24275-6.)
- small shrubby tree
- (buds fixed)
- same (buds fixed)

small tree, leaves rather
dull (buds fixed)
flowers green

bush 1.5 m. tall, fls. green.
(buds fixed)

bush 1.5 m. tall, fls. green
fruit immature, fruiting
calyx lobes fleshy,
divergent (buds fixed).

mass coll. 1 twig from
each of trees within
reach of trail.

1946 Oahu

Apr. 28 Waikane - Schroyfield
trail, Kahana side

wet bushy forest on steep slope 2000'-2400'

24221 *Hedyotis* ^{centranthoides var.} *glomerata*32 *Gouldia*33 *Hedyotis* ^{centranthoides var.} *glomerata*Apr. 28 same, Waikane
Valley.

800'

34 *Ficus*
planted along trailsuffrutescent herb
with leathery leaves
buds purple (buds fixed)mass coll. 1 twig from
each tree within reach
of trail.suffrutescent herb 1.5 m.
tall, fls. purple without,
green within.small tree, cauliflorous,
fruiting abundantly
on lower part of trunk,
more sparingly above
and on larger limbs.

May 13 - Eniwetok Atoll

Perry I. + Eniwetok I. have
been denuded almost
completely.

Japstan I., Jierom I., Igoir I.
and Mui I. seem still fairly
well covered with vegetation.

May 13 - Eniwetok Atoll,
Eniwetok I.

24235 *Ipomoea alba*
sand dunes facing inner beach
seaward slope of dune.
very local.

86 *Euphorbia atoto(?)* *hammonis*
lower slope of dune. rare

87 *Ipomoea pes-caprae*
seaward slope of dune,
very local.

88 *Cassytha filiformis*
parasitic on *Ipomoea pes-caprae*,
rare.

same - sand flats around
buildings

89 *Eleusine indica*
common locally

90 *Eragrostis amabilis*
common locally

On Eniwetok sea mays,
Solanum lycopersicum
and *Ipomoea purpurea*
were seen in a garden.
Tomato is said to do well.

prostrate, densely carpeting
slope of dune, flowers
white, closed in afternoon.
leaves fleshy, veins
conspicuously impressed above + below.
leaves fleshy, white beneath.

prostrate, leaves somewhat
thick, sterile except for
one old fruit.
leaflets parasite, stems
green.

loose clumps, taller where sheltered.

depressed bunches,
mostly dead.

24291 *Scaevola frutescens* (Mill.) Kr.
common locally over entire island
(commonest shrub on island)

92 *Cynodon dactylon*
common locally,

93 *Messerschmidia argentea*
occasional generally

94 *Guettarda speciosa*
rare (possibly planted)

95 *Thaunsa involuta*
rare, one mat seen

96 *Portulaca oleracea* L.
common

97 *Portulaca quadrifida*
very common

98 *Lepturus repens* Var. *subulatus* Forb.
common everywhere

99 *Triumfetta procumbens*
common

24300 *Lenchus echinatus*
occasional

01 *Fimbristylis cynosa*
common

rounded bush 1 m. tall,
corolla white within,
thickened parts green
without, fruits white, fleshy.
forming dense mats, scapes
erect.

shrub 1.5 m. tall, leaves
silvery-green, fleshy,
flowers white.

shrub 2 m. tall, sterile.

prostrate, forming
thin close mats on sand.

prostrate, fleshy,
purplish.

prostrate, dense, fleshy,
purplish, leaves thick
but compressed, arranged
in flattened masses,
flowers yellow, about
15-20 mm. across,

style branches 5, stamens
about 15. root thickened.

forming bunches but
with runners forming
mats.

prostrate, stems several
m. long, branched, forming
mats; flowers yellow!
leaves fleshy.

loose small tufts

tufts, leaves rather stiff.

May 14 - Igarin Islet,

Eniwetok Atoll

flat sand mixed with coral fragments, slight swale in center but this has been destroyed by naval installation

(no makatea noticed)

(no Pandanus seen)

(one Cerbera seen, not collected)

(sterile grass seen, not coll.)

24302 *Morinda citrifolia*
not common, but several small patches noticed

03 *Cordia subcordata*
only one small patch seen in rather low brush toward east end of island

04 *Pisonia grandis*
common in wooded central part of island, this plant on inner beach.

05 *Ipomoea alba*
occasional on inner margin of woods

06 *Boerhaavia diffusa*
occasional patches in open shaded sandy places,

vegetation is basically a tall brush of *Scaevola* with *Guettarda* quite common, and *Pisonia* common in main part of island but dropping out toward the ends. *Messerschmidia* is common on the outer and inner edges, but scarce inland. *Suriana* only on west end, not common. Coconuts planted, especially at center

— small tree 4 m. tall, leaves somewhat glossy above, flowers white
— shrubs 1-2 m. tall, completely sterile.

wind-beaten tree 5 m. tall, staminate, flowers fragrant, perianth green but with revolute edge whitish.

— vines mostly dried up at this season. Leaves of old plant fleshy. (the better leafy branch from a different plant, just starting this seasons growth.)

— very prostrate, forming large thin mats. stems + petioles red, leaves whitish beneath, fls. pink.

- 24307 *Portulaca lutea*
several small patches
near inner beach, in
rather open places
- 08 *Pisonia grandis*
common on main part
of island.
- 09 *Canavalia cathartica* Thomas
occasional on inner side.
- 10 *Suriana maritima*
occasional, but only in
open places on extreme
west end of islet
- 11 *Triumfetta procumbens*
common but very locally,
mostly on open sand.
- 12 *Guettarda speciosa*
very common throughout
vegetation
- 13 *Cassytha filiformis*
occasional (this one
parasitic on *Guettarda*)
- 14 *Scaevola frutescens* (Mill.) Kr.
the dominant plant in the
vegetation, forming in
most places a dense bush.
- 15 *Messerschmidia argentea*
common, especially along
outer edges of vegetation

- stems ascending,
gray-brown, thick, whole
plant fleshy. (no fls.
seen)
- shrub 2 m. tall, pistillate,
very few seen with fruit.
- vine climbing over trees,
fruiting ones dead, living
ones sterile.
- bush 1 m. tall, flowers
butter-yellow. (only
this one bush seen flowering,
others all past fruiting).
- prostrate, leaves fleshy,
flowers yellow.
- shrub 1.5 m. tall (others
several times as tall),
flowers white, very
fragrant, fruits apparently
not quite mature.
- leafless parasite, stems
yellow-green.
- shrub 5 m. tall (commonly
this tall except toward ends of islet)
flowers white (even on thick
parts) with purple markings
in sinuses.
- tree 5 m. tall, (others even
taller), leaves silvery green,
fleshy, flowers white, fragrant

- 24316 *Cocos nucifera* L.
commonly planted almost
throughout islet.

a single tree of *Mangifera indica*
and one of *Artocarpus altilis*
reported on good authority, not seen
by me.

May 15 - Japstan Islet,

Eniwetok Atoll

flat coral sand toward
inner beach, becoming
more and more rocky
toward outer beach and
along passage.

Vegetation basically
a brushy ^{forest} *Scaevola*,
Pisonia, *Guettarda*, *Cerbera*,
with some *Morinda citrifolia*,
scattered *Pandanus*, the
inner portion planted
to coconuts.

The *Pisonia* is mostly
rather small, but with
some larger trees. These
almost leafless - possibly
because of the dry season.

tree 10 m. tall, leaves
several m. long; panicles
enclosed in a woody
spathe before anthesis,
at anthesis both ~~of~~ sexes
of flowers and panicles
ivory-white, resembling
carved ivory. Specimens
represent only small
fragments of panicle + leaf.

The number of husks
on ground indicate that
copra was produced
here before the war.

Pisonia is in flower and
so abundantly so that
the air is perfumed.

This vegetation is
very disturbed, both
by bomb craters,
bulldozer activity
and with a maze of
roads.

The forest becomes
much lower and more
scrubby toward the outer
beach, as the ground
gets rockier and rockier.
Nowhere is there the
dense solid growth
observed on Iquirin.

The *Pandanus* is not especially
variable, except in leaf length.

24317 *Pandanus tectorius* Park.
occasional, especially
toward inner beach.

18 *Guettarda speciosa* L.
common Throughout
island

19 *Ximenesia americana* L.
very rare, 2 plants seen on
rubble toward outer beach

20 *Eleusine indica*
around village

21 *Fleurya nederalis* Gaud.
occasional

22 *Triumfetta procumbens*
common

23 *Portulaca quadrifida* L.
openings, common

24 *Cenchrus echinatus*
rare, ~~bottom of excavation~~
around dwelling

25 *Lepturus repens* (Forst.)
common in openings, this clump
on lagoon beach.

26 *Portulaca lutea* Sol.
common in open places

27 *Setaria verticillata*
rare, one clump seen in
bottom of ~~excavation~~ excavation

tree 8 m. tall, sparsely
branched, fruit green
distally, ~~yellow~~ fleshy
part yellow, sweet, with
peculiar ether-like flavor,
not at all irritating,
eaten by natives.
shrub 2 m. tall,
fruit green, fls. white.

rigid bush with weak
spines, leaves yellow-green,
fls. yellow, fruit immature
small tufts

stems red, fleshy, leaves
glossy, low rounded
bushy herb.
prostrate, root system very
extensive, as long as branches, sterile!
prostrate, roots enlarged,
plant fleshy, fls. yellow,
dense clump.

dense clump of erect culms
with ~~stems~~ runners
spreading from sides of clump.
spreading, stems fleshy,
leaves fleshy, flowers
yellow 1.5 cm. across, stamens
many (over 25).
dense clump.

- 24328 ^{Digitaria} ~~Ficus~~ *inularis* (L.) May
small patch in open ground
- 29 ~~Boerhaavia~~ *Ochrosia oppositifolia*
common in bushy vegetation
on rocky ground
- 30 *Cassytha filiformis*
parasitic on *Guetarda*, the
host completely covered and
almost dead.
- 31 *Terminalia catappa* ^{samoensis} Rech.
rare, 2 small trees on rocky
ground along passage.
- 32 *Pisonia grandis*
very common, co-dominant
to dominant in vegetation.
- 33 *Tacca leontopodioides* ^{stolonifera}
rare, one clump seen ~~in~~
in rocky soil in opening.
- 34 *Boerhaavia diffusa*
occasional
- 35 *Morinda citrifolia*
common
- 36 *Scaevola frutescens*
abundant, co-dominant in
vegetation
- 37 *Pisonia grandis*
very common, co-dominant
in vegetation.
- 38 *Cordia subcordata*
rare, one tree seen on inner beach

small bunches.

small tree 5-5 m. tall,
buds white, fruits on
ground beneath.
- leafless parasite, stems
yellowish green, flowers
white.

tree 4 m. tall, densely
branched, fruit immature.

low trees, some getting
~~very~~ large.

- leaves just unfolding,
tubers about 5-8 cm.
- below surface of soil.
- prostrate, stems red,
small tree 3-4 m. tall, leaves
glossy, flowers white
fruit translucent, when
decomposing with a power-
ful strong odor.
- shrub 1.5 m. tall (others
much taller), flowers
and fruit white.
- shrub 3 m. tall, flowers
green with whitish ^{reflexed} margins
fruit immature.
- tree 10 m. tall; flowers
delicate, brilliant orange,
fruit green.

- 24339 *Messerschmidia argentea*
common, especially along beaches
- 40 *Digitaria* ~~parviflora~~ ^{minor} ~~var. minor~~
fairly common in open
places and under coconuts
- 41 ~~Thunbergia~~ *Thunbergia involuta*
occasional in sandy places
toward inner beach
- 42 *Sporoclea alba*
abundant, climbing over
everything
- 43 *Fimbristylis cymosa*
common in open sandy places
- 44 *Eragrostis amabilis*
common, especially in open
sandy places.

May 16 - Aomon Islet,
Eniwetok Atoll

flat, very broad from
lagoon to outer beach.
mostly sandy flats,
changing to broken coral
rock as outer beach is
approached.

Practically entire islet planted
to coconuts. The inner part
clear beneath, with a grass
covering of mixed *Lepturus repens*
and *Eragrostis amabilis*. Nearer
the outer beach a brush of
Scaevola and *Pisonia* occupies
the space beneath the trees. This
seems to be occasionally cleared

tree 5 m. tall, flowers white,
fruit green, ~~for~~ fleshy.
small bunches

very prostrate, forming
large thin mats.
- fruiting spikes erect.
- extensive vine; leaves
not fleshy, flowers
white,
- tufts
spreading, prostrate tufts.

out, and in any given place
seems to be of uniform age.
Here and there it is mixed
with *Morinda* and *Guettarda*
with occasional *Messerschmidia*.
The latter forms a conspic-
uous fringe around the
outer and channel beaches.
Just inside this *Cordia* is
rather common.

Two *Boerhavia*s are common, one more
so ~~to~~ toward the outer, the other toward
the inner beach, but both present
both places, not noticeably intergrading.

Coconut "waeni" and *Pandanus* "Bofi"
not collected. Informants chief Joseph
and chief Brown Smith.

- 24345 *Fimbristylis cymosa*
local in grassy open
land under coconuts near
inner beach.
- 46
on stone walls of well in
center of island, brackish water.
- 47 *Eragrostis amabilis*
common in sandy disturbed
places, along trails and around
village.
- 48 *Achyranthes aspera*
one small patch near
center of island.
- 49 *Ipomoea alba*
common toward ~~inner~~
~~inner~~ outer side of island.
- 50 *Morinda citrifolia*
common locally, especially
toward outer beach.
- 51 *Cordia subcordata*
common along a strip just
in from the outer beach.
- 52 *Messerschmidia argentea*
abundant along outer and
channel beaches, occasional
inland.
- 53 *Lepturus repens*
abundant throughout the island,
especially in open places,
where it is the dominant plant.
- 54 *Thuarea involuta*
occasional on rocky soil
toward ~~inner~~ outer beach.

tufts, spikes already
shattered.

"berejisman"

greenish slimy ~~th~~
coat on stones.

spreading loose clumps
"ujos" (perhaps ~~is~~ simply
meaning "grass")

erect herbs, 1 m. tall.
"kaleklek"

vine climbing over
bushes. "bele"

bush 3 m. tall, flowers
white, ripe fruit white,
looking like a potato "nen"
sterile shrubs 2-3 m.
tall. "kono"

tree 7 m. tall, flowers
white, leaves fleshy,
silvery green. "kirin"

tufts, spreading by
runners. "ujos aitok"

very prostrate, forming
thin mats; sterile.
"ujos maroro"

24355 *Digitaria pruriens* var. *microbachne*
rare, on rocky ground near
outer beach

56 *Boerhavia ~~diffusa~~ diffusa*
common on rocky ground
near outer beach.

57 *Pisonia grandis*
codominant with *Scaevola*
in basic vegetation of island.

58 *Portulaca lutea*
common, especially in open
places.

59 *Sida fallax*
common in openings, especially
toward outer beach.

60
disease on *Sida fallax*
Not determinable.

61 *Scaevola frutescens*
co-dominant with *Pisonia*
grandis in basic vegetation
of island

prostrate rooting at nodes,
culms spreading to ascending
— "ujos kulukuli"
prostrate, stems red.
leaves purple beneath, thin,
flowers pink. (found
with # and not
especially intergrading
with it) "matole"

(not seen fruiting) (not
seen affected by *Albugo*)
shrub 3-4 m. tall,
stems brittle (others
seen much larger)

"kañae" (pronounced kangae)
stems reclining to
ascending, whole plant
fleshy, flowers not seen
(11:30 a.m.). "kiran".

shrubs 1-1.5 m. tall,
flowers orange with
red patches just above
claws of petals, making a
red-centered flower. "kio"
(attached by powdery mildew #24560)
plants more or less
~~seem~~ unhealthy looking,
practically sterile, when
heavily infected.

bush 1 m. tall (others
to 3 m. or more), flowers
white, sinuses tending to be
purple marked "ma kinat"

- 224362 *Boerhavia diffusa*
common, especially inland
(but growing with #24356 and
not especially intergrading with it)
- 63 *Albugo boerhaviae* (Malensis) Speg. & Suring
fairly common on *Boerhavia diffusa*,
but only on the fleshy-leaved
form of it (var. *tetrandra*?)
- 64 *Guetarda speciosa*
common throughout island.
- 65 *Cassytha filiformis*
parasitic especially on
grass (*Lepturus repens*, etc.)
but on other plants also, very
abundant.
- 66 *Triumfetta procumbens*
common throughout island
especially in open places.

May 17 - Eniwetok I.

Eniwetok Atoll

sandy flats around buildings.

- 67 *Euphorbia hirta*
rare, one plant seen
- 68 *Vernonia cinerea*
local
- 69 *Digitaria pruriens* var. *microbachne*
local

prostrate, stems green
to reddish, leaves sub-
fleshy, white beneath,
flowers pink (larger than
in #24356) "matok aikok"
(commonly attacked by albugo #24363)
producing a conspicuous
alteration in growth
habit)

shrub 2 m. tall, flowers
white, ripe fruit white,
fleshy, subglobose.
"wut"

forming great patches
on grass, stems yellow-
green; flowers white,
fruit translucent white,
pericarp surrounding
but not touching ripened
ovary. "kenes"
main stems prostrate,
branches erect (in shade,
in full sun entirely
prostrate), flowers yellow.

tips arching.

herb up to 1 m. tall,
flowers purple.

- 24370 *Mirabilis jalapa*
one plant seen
- 71 *Sida fallax*
occasional near west end of islet.
- 72 *Amaranthus viridis*
one small patch seen

May 16 - Hosaka collected
Pemphis acidula and
Luriana maritima on
Piirasi Islet, saying they
were abundant.

May 17 - R. Oakley collected a
specimen of *Artocarpus altilis*
on Japstan Islet. It represented
the one tree. (records of natives
visiting Japstan to collect
breadfruit apply to Pandanus,
which the naval people
mistook for breadfruit.
Oakley searched for the
removed mango but was
unable to locate it.

- bushy herb, flowers crimson,
closed at 11:20 a.m.
- plant prostrate (others seen
more or less upright), flowers
orange, with reddish spots
on petals just above claw.
- prostrate, stems purple
striate, spikes purplish.

May 18 - Engebe Islet,
Eniwetok Atoll

This islet was almost completely denuded. At the outer end a few tattered remnants of forest remain, mostly *Pisonia* and *Messerschmidia*, with *Scaevola* between.

In other parts there is grass and flats on which the bushy vegetation is beginning to come back. This process is interesting in that it is almost unaccompanied by succession. Of course, a few weeds gain a foothold in many places before the *Messerschmidia* and *Scaevola*, and in the grassy parts a definite vegetation develops. The grass is mainly *Lepturus* and *Eragrostis*. It seems to retard rather than further the development of the bushy type, which in the more gravelly or rocky types of soil comes back directly.

I would judge that the *Pisonia* is a later member of the vegetation, coming in in the shelter of the *Scaevola*

and *Messerschmidia*.

Remnants of cultivation are scattered here and there over the island, especially in the more sandy places and around buildings. Tomatoes form luxuriant vines and excellent fruits, though very few fruits were setting when we were there.

Cucurbits of several kinds seemed to do fairly well, though they were more or less chlorotic and set few fruits. *Ricinus* was flourishing as a dooryard plant. Mr. MacMillan mentioned a gourd (prob. *Lagenaria ciceraria*) which I didn't see. Most surprising of all was a small patch of broom corn.

The coconuts were almost all gone.

How the single bush of *Pluchea odorata* got there is hard to guess.

- 24373 *Digitaria pruriens* var. *microbachne*
common locally, especially
around buildings
- 74 *Solanum lycopersicon*
small patches, persisting
from cultivation
- 75 *Citrullus vulgaris*
small patches, persisting
from cultivation
- 76 *Cucurbita maxima*?
growing over bomb-shelter
- 77 *Ricinus communis*
planted around building
- 78 *Cenchrus echinatus*
very abundant over all
the island
- 79 *Cynodon dactylon*
common locally
- 80 *Cucurbita maxima*?
one patch seen, persisting
from cultivation
- 81 *Morinda citrifolia*
rare, 2 or 3 bushes seen
- 82 *Vernonia cinerea*
common in one place
- 83 *Sorghum vulgare* var. *technicum*
persisting from cultivation
- 84 *Eleusine indica*
common everywhere

loose bunches, tending
to cover the ground.

- vines luxuriant but
flowering sparingly,
setting very few fruits.
- plants prostrate, flowers
yellow, fruits globose,
weakly striped, immature
(plants chlorotic, setting
few fruits).
- plant prostrate, leaves
with gray patches,
flowers yellow, fruit
very immature.
- shrub 2 m. tall, staminate
flowers yellowish, pistillate
red.
- spreading tufts.

forming dense turf

- prostrate, extensively
creeping, flowers yellow,
leaves green, without gray spots.
- bush 1.5 m. tall, flowers
white, leaves glossy.
- erect herb, up to 0.8 m.
tall, heads purple.
- erect herb 2 m. tall.

plants vary in size
with protection of location.

24385 *Euphorbia* *chamissoi* Biss.

86 *Fimbristylis cymosa*
common near inner beach

87 *Eragrostis amabilis*
common everywhere

88 *Brassica*
in open field, only one
seen, ~~the~~ probably persisting
from cultivation

89 *Sida pallas*
common locally

90 *Amaranthus* *dubius*
small colony near
windward side
near buildings

91 *Wedelia biflora* DC.
local on sandy or rocky
flats.

92 *Setaria verticillata*
common, this plant from
slope of rubble hill

93 *Sida pallas*
common, especially toward
~~windward side~~ outer beach

94 *Boerhaavia diffusa*
common locally on ~~near~~ outer
beach

Eniwetok Atoll

leaves pale beneath,
flowers sticky.
tufts

prostrate spreading
tufts.
leaves crispate,
petioles white.

herb up to 0.8 m. tall,
stems reddish.

prostrate with ascending
branches, forming
extensive low tangles.
rays yellow. leaves
more or less fleshy.

shrub 0.7 m. tall, flowers
orange with reddish
spots above claws of
petals.

prostrate from thick root,
~~the~~ stems red, leaves
somewhat fleshy, pale
to reddish beneath,
flowers pink.

- 24395 *Lepturus repens*
common all over islands
- 96 *Messerschmidia argentea*
common, especially toward
windward side, codominant.
- 97 ~~*Guettarda*~~ *Scaevola frutescens*
~~bush~~ common, especially
toward outer beach
- 98 *Guettarda speciosa*
occasional
- 99 *Fleurbaeya ruderalis* Gaud.
local ~~on~~ ~~on~~ on roadsides
- 24400 *Portulaca quadrifida* ~~campanulata~~
common everywhere
in open ground.
- 01 *Trumbetta procumbens*
common
- 02 *Pisonia grandis*
common toward ~~outer~~
outer beach
- 03 *Tribulus cistoides* L.
one small patch seen in
open flat.
- 04 *Ipomoea pes-caprae* (L.)
patch near east passage
- 05 *Pluchea odorata*
one bush seen, ~~is~~ somewhat
sheltered by embankment.

- bunches with runners
spreading from them
small tree 5 m. tall,
flowers white, leaves
silvery green, fleshy.
- rounded bush, flowers
and fruits white.
- bush 1.5 m. tall,
flowers white.
- stems red, fleshy.
- prostrate, fleshy,
flowers yellow, 1 cm. across,
petals apiculate.
- prostrate, extensive
fls. orange-yellow.
- small tree 4 m. tall
(others much larger),
leaves on ~~underside~~ ^{upper} side
of tree fleshy, ^{glossy} on other
side thin & dull.
- prostrate, extensively
creeping, flowers yellow,
one at or near end of
each stem.
- prostrate, extensively
creeping, leaves fleshy,
scarcely notched
flowers purple, open
during forenoon.
- low rounded bush, 1 m.
high, heads pinkish.

24426 *Pisonia alba*
common

07 *Chloris inflata*
common here and there
about buildings

08 *Portulaca oleracea*
common everywhere

09 *Cucumis melo*
a few plants persisting
from cultivation

Enicoclosis atoll

trailing on ground,
lactiferous, leaves
scarcely fleshy, veins
impressed above.

prostrate, often forming
great mound-like
masses up to 1 m. or
more across, fleshy,
flowers small (5-6 mm)
stamens 10 or less.
plants prostrate,
flowers yellow,
fruit about half grown.

May 23, 1946 - Moen I., saddle
~~at~~ Mt. Tonaachan and main part of island
 weedy disturbed ground

24410 *Chrysopogon aciculatus*

11 *Paspalum conjugatum*

12 *Cenchrus*

13 ^{stink leaf spot}
 rust on *Cenchrus* (24412)

May 23, 1946 - Moen I. old village
 of Mechetin, inside of bay of Bou,
 cultivated and weedy
 marshy land at base of hill
 on flat behind ~~the beach~~
 shore

14 *Morinda citrifolia* L.
 above marsh level

15 *Columella trifolia*
~~at~~ at and above marsh level

16 *Physalis*
 just above marsh level.
 in deep ^{grassy} vegetation

17 *Ipomoea reptans*
 growing in ponds in standing
 water.

prostrate, clinging tightly to
 ground, scapes erect.
 - stems prostrate rooting
 at nodes, scapes erect,
 spikes divergent.
 - culms spreading from
 root crown, spikes
 - cylindrical
 purplish brown spots
 on leaves.

shrub 7 m. tall, flowers
 white.
 - vine climbing on other
 vegetation, panicles
 flat-topped, fls. green.
 - slender herb, tangled
 with other plants,
 flowers pale yellow with purple center.
 - stems inflated; plant
~~is~~ said to have
 been introduced by
 Japanese, young tips
 eaten.

24418 *Ipomoea digitata* L.
common

2 May 23, 1946 - Moen I. new location of
Mechetin, on S. n. e. coast on pen.
(informant about mile) c
narrow mangrove swamps
and village grounds back of it.

19 *Excelsaria agallocha*
common

20 *Rhizophora mucronata*
dominant in vegetation

21 *Davallia solida*
common on tree trunks at
edge of and back of mangroves

22 *Hedyotis biflora*
on base of tree trunks at
edge of mangroves

~~Oaksley - same loc. & date
rust on sugar cane~~

23 *Vernonia cinerea* (L.) Less.
weedy ground around village

May 23, 1946 - Moen I.
saddle bet. island and peninsula
called Labuk.
abandoned cultivated ground,
used as gardens by the Japanese

24 *Labiata Hyptis suaveolens* Pin.

vine climbing in trees,
flower bright purple.

lactiferous, leaves thick,
small tree, sap said
to ~~be a skin irritant~~ cause
skin irritation "ousis"
small tree with arching
prop roots, flowers cream
whitish; leaves with
distinct mureo, leathery.
"chia"
"kati"

prostrate to ascending,
leaves fleshy, pale
beneath, corolla pale
lavender, tube swollen,
throat constricted, lobes
erect. "nisanbōni"
fls. purple. "ennentuko"

Oaksley - same loc. & date
rust on sugar cane(?)
+ scab on citrus aurantiifolia.

tangled herb, strongly
aromatic, flowers
violet. "lehehe"
"nehehe"

1946 Truk Is. (Caroline Is.)

24425

Wedelia biflora

common in openings all over island.

2

26

Passiflora foetida L. var. *hispida* (DC.)
common among weeds

Killip

27

Cassia

28

*Vigna*May 23, 1946; Moen I. slopes
of Mt. Tonaachau

the slopes of this mountain,
and apparently of others in
the island group were apparently
once well wooded. Native
cultivation has broken down
this vegetation completely.
Breadfruit and Coconuts have
been planted to the tops of
the mountains. Patches
of woods (second growth)
and thickets persist,

Moen I.

prostrate with ~~erect~~ ^{ascending}
branches, rays & disk
yellow.

vine, flower white
with basal part of
corolla lobes purple, fruit
orange, sweet and
of fair flavor, herbage
with unpleasant odor
but not strongly so.
erect herb 1.5-2 m. tall,
flowers yellow. said to
have been used as a
substitute for tea by
the Japanese during the war.
vine with erect
peduncles; flowers
purple with a white
straight keel. Eaten
by natives and Japanese.

especially on steep places. The
Japanese cut down many of the
coconuts and breadfruit and planted
sweet potatoes, which are still
abundant. Many open places are
covered by *Miscanthus japonicus*.
The main ^{high} trees and shrubs
are *Glochidion*, *Premna*, *Acalypha*,
#24439, etc. *Wedelia* is common.
Ipomoea sp. #24418 covers the hills
Manihot is also commonly
cultivated.

- 24429 *Premna obtusifolia* R. Br. (obtusifolia)
occasional in thickets

- 30 *Glochidion*
most common tree on slopes
and ridges

- 31
rare on slopes & ridges

- 32 *Acalypha*
very common on slopes
in thickets

- 33 *Stachytarpheta dichotoma*
in open grassy places

- 34 *Lelera*
weed in cultivated field.

- 35 *Cyperus*
weed in cultivated field

- 36 *Derris* abandoned
weed in cultivated field

- 37 *Macaranga*
~~abundant~~ in thickets

- 38 *Glochidion*
in thickets, common

- 39 *Commersonia bartramia* (L.) Merr.
occasional on slopes

- shrub 2-3 m. tall, rather
unpleasantly aromatic;
flowers greenish white;
fruit green, ripe ones black.
- small tree, wood pink,
dense; flowers yellow;
fruit green, seeds red.
(wood sample)
- shrub 2 m. tall, flowers
pink
- shrub 2 m. tall

flowers deep blue-purple

dense erect bunch

small dense tufts

- sterile vine, leaves
~~flat~~, glaucous beneath.
- shrub 2 m. tall,
fls. greenish
- shrub 3 m. tall,
flowers yellowish.
- shrubby tree 5 m. tall,
fls. white.

1946 Truk Is. (Caroline)

May 24, 1946 - ~~Fort~~ Tol I.,
 Mt. Uniboet,
 montane rain forest covering
 top third of mountain

24440

Pteris

common in shade

41

Nephrolepis

common in openings

42

Glochidion

occasional on slopes

43

Asplenium

base of tree trunk

44

Piper

~~common~~

45

Cyperus

along trail

46

Psychotria

common

47

Selaginella volkensii

common on wet rocks

48

Polypodium

very local on top of mountain

49

Eugenia

rare

50

~~Intsia bijaya~~ Cynometra

one of the commoner trees in

51

Piper

52

Acalypha

common

53

Acalypha

common

frond not plane, young
 ones especially with
 - pinnal raised.
 - small tree 15 m. tall,
 fls. yellow.

vine, climbing in lower
 branches of tree, aromatic
 when broken.

tufts

shrub 3 m. tall, flowers
 white.
 erect.

small tree

tree 20 m. tall, 5 dm thick

700' vine, climbing in tree,
 leaves pale beneath

800' shrub 2 m. tall,
 - staminate spikes weak.
 shrub 2 m. tall, pistillate
 spikes erect, styles red.

24454

top of mt.

- 55 Macaranga
common on top of mt.

- 56 Psychotria
common on top of mt.

- 57
occasional on top of mt.

- 58 Psychotria.
prob. same as #24456,
growing with it.

- 59 Cordyline terminalis
scattered along trail

- 60 Psychotria
rare, one plant seen on top of mt.

- 61
common, terrestrial

- 62 Zingiber
occasional, top of mt.

- 63
common on top of mt., seeds
germinating everywhere

- 64 Pipturus
occasional on slopes

- 65 Geocardia herbacea
common along trail on slopes

- 66 Psychotria
common on slopes

- 67 Pipturus
occasional on slopes

shrub 2 m. tall
- fruit immature
tree 10 m. tall

shrub 3 m. tall

tree 8 m. tall, spreading,
- flowers white.
shrub 1.5 m. tall,
fruit yellow.

~~see~~ relatively small
plants only seen, buds
- white. "tin"

shrub 2 m. tall, flowers
- white, stamens exserted.
stems ascending, fleshy;
leaves thin, flowers dull yellow,
leaves dark green, paler

~~below~~
large tree, aromatic, seed
grated, mixed with coconut oil to
apply to hair.
shrub 2 m. tall.

prostrate, forming mats,
scapes erect, flower white,
- fruit red, fleshy.

shrub 1.5 m. tall, fruit
- immature

1000'
shrub 3 m. tall, spikes
pendent, stigmas white.
leaves clear green beneath

24468 *Panicum*

lower edge of native forest

69 *Randia carolinensis* Val.

very common in entire forest.

70 *Randia carolinensis* Val.

very common in entire forest

same - but lower slopes of mountain up to 250 m. mostly coconuts and breadfruit, with undergrowth and plots of Manihot, etc.

71 *Psychotria*

rare in undergrowth

72 *Curcuma*

rare in undergrowth

same - low terrace near bay, Fason village

Breadfruit, coconuts, etc. with small streams and undergrowth, small patches of taro, etc.

73 *Caladium bicolor*

~~established~~ established locally in wet places.

74 *Citrus aurantiifolia*

commonly cultivated.

75 *Paspalum vaginatum*

abundant, dominant in marshes along bay.

tangled in undergrowth

tree 10 m. tall, flowers white.

B00'

B00'

clump of sprouts 2-3 m. tall. fruits not completely grown.

shrub 3 m. tall, buds whitish, "nen" (from Nam Kaerchen) leaves somewhat pinnate, root lemon yellow within, aromatic; bracts rose, flowers cream without, yellowish within (inner parts).

Colococcus seen here ~~in~~ site commonly.

leaves white, veins and margins outlined in green, ~~to~~ petioles purple. trees 5 m. tall, leaves dark green, fruit turning yellow.

mucronata Desv

24476a *Crotalaria saltiana*
in small clearing~~Thespesia~~ *Enhalus acoroides*
used for making nets - fibers from
edges of leaves dried, twisted
into twines.May 25 - Foloms, Udote
broad mangrove swamps
that have largely been
destroyed. When American
bombers sank oil tanker
the oil washed in among
the mangroves, caught fire
and burned them.24476 *Sonneratia alba* F. Sm.
occasional77 *Bruguiera*
common78 *Bruguiera*
common79 *Hedyotis biflora*
edge of stone path in swamperect, 1.5-2 m. tall, flowers
yellow, wings with dark lines.~~Thespesia~~ (dead) *Enhalus*
mangrovetree 5 m. tall, filaments
many, white. Pneumato-
phores narrowly conic, white
- bushy tree 2 m. tall (others
much taller). calyx +
hypanthium red ~~petals salmon~~
prop roots close, masses
pneumatophores rounded,
knee-like.tree 5 m. tall, calyx + hypanthium
greenish, petals salmon-yellow.
prop roots close to trunk, less
- pneumatophores blunt, knee-like
prostrate, leaves thick,
pale beneath, flowers pale
lavender.

24480

occasional

May 25 Udot I., Penis village
fresh water marsh inside
beach road mangroves
without, but sparse.

- 81 *Cyrtosperma merkusii* (Hussk.) Schott
cultivated in marsh, ^{det DHK}
abundant. 6/1998

82 *Polygonum*

common in edge of marsh.

May 25 - Manitu village,
Udot I.

cultivated lowlands
back of mangrove swamps
and beach. Flats with
marshes and tidal channels
separated by hard, bare
basalt outcrops which
run right down to the beach.

Udot

bushy tree, mostly
unopened buds.

leaves erect petioles
variably ~~spiny~~ ^{glaucous},
leaves up to 2 m. tall
erect deep green, glossy,
petiole curved where
inserted in blade; peduncles
about 1 m. tall. sheaths
light green, odor not
unpleasant. ~~stems~~
Corms an important source
of food, eaten at about 2-3
years, at flowering time
these leaves from different
plants to show variation
in fruitfulness. "pula"
~~is~~ submerged stems
extensive, flowers white.

Coconuts + breadfruits are principal
crops - also Manihot and banana.
Scleria very common in marshes
Barringtonia racemosa along
tidal channels.

24483 Dennis

at top of beach, locally common.

84 ~~Thespesia populnea~~

84 Thespesia populnea

occasional

85 Bambusa vulgaris Schrad. ex Wendl.
rare, planted.86 Barringtonia
abundant along small
streamlets or tidal channels.

87 Canavalia ensiformis (L.) DC.

88 Polyscias ^{tricholepta}
ornamental in yard89 Polyscias
ornamental in yard90 Felerja
very abundant in marshes
also invading cult. land.

Udot).

sterile vine growing
on ground and on base
of coconut trees."ulelipot", not used as
fish poison.- tree 6 m. tall, wood used.
"pono"- ~~tree~~ clump of small culms
2 m. tall, sheaths from
4th & 5th nodes, sheaths
pendent from the middle
part of attachment.Other culms seen from
same clump, but in use,
that must have been
8 or 10 m. tall, nodes about
2 to 2.5 dm. apart.said to have been brought
in by Japanese.- shrubs 2-3 m. tall,
inflorescence pendent,
~~filamentous~~ petals
white or greenish white,
stamens pink, style
deep pink. "sol" pronounced "saur"- erect but becoming
vine-like, pods green.

Introduced by Japanese.

- very erect; leaves
variegated. shrub 2.5 m. tall.
sterile - dense shrub 1 m. tall, sterile.herb 1-1.5 m. tall, from
dense root crowns.

1944 - 7 mks Is. (Caroline)

- 24498 *Stachytarpheta*
cultivated in gardens
as ornamental.
- 92 *Lantana camara* f. *aculeata*
cult. in garden as ornamental.
- 93 *Euphorbia heterophylla*
cult. in garden as ornamental

- 94 *Hernandia ovigera*
edge of beach

- 95 *Derris*
common everywhere in
disturbed ground.

May 25 - Udot Is., old mission
garden ~~on~~ in saddle bet.
Monua (Molua) and Manitu
villages.

semi-cultivated ground.

- 96 *Capsicum frutescens*
- 97 *Morinda citrifolia* L.

- 98 *Citrus aurantium*

Udot

- shrub 1 m. tall, trimmed
into a hedge, fls. deep
blue-violet.
- shrub 2.5 m. tall, fls.
~~yellow~~ yellow, turning pink.
- shrub 1 m. tall, patches on
bracts varying from
salmon to white. said
to have been red to start
but getting gradually
whiter. Perhaps a deficiency.
- tree 1 m. tall, leaves
leathery, fls. greenish white.
fruit fleshy, white. "aguan"
- wine creeping on ground,
leaves glaucous beneath.
sterile. "up" or "ub" roots
pounded and used to poison
fish. used in quantities of
a large double handful.

Many cultivated species said
to have been brought from Ponape
by missionaries.

- shrub 1 m. tall; fls.
greenish.
- bush 3 m. tall; flowers
white; fruit eaten when
ripe and soft. "napur"
- tree 2 m. tall, apparently
free from scab that attacks
C. aurantiifolia not far away.
varies sour.

1946 7. n. k. Is. (Caroline)

24499 *Annona muricata* L.May 25, Udot I., Monua (Moluä)
village

semi-cultivated land in village

24500 *Citrus aurantiifolia*01 *Pemphigus acidula*
top of beach02 *Xanthomona citri* (Horn) Duggan - citrus canker
on *Citrus aurantiifolia* 24500May 27 - Fefan I., saddle
bet. Mt. Chukuson & Mt.
Chukuchap, bet. Mesa
Village and Sanuk (above
Foudjuén Village)open grassy slopes with
Paspalum conjugatum, *P.*
orbiculare, small ~~for~~ thickets
of *Premna*, *Glochidion*, *Acalypha*,
etc., with *Cocos* and *Artocarpus*03 *Hibiscus tiliaceus*
patches on slopes04 *Acalypha*
common in thickets

Udot I. - Fefan I.

tree 6 m. tall, leaves glossy.

tree 6 m. tall, badly
infested with scale.
- shrub ~~2 m.~~ 2 m. tall,
flowers white.
- heavy infestation.planted abundantly,
but numbers of these
cut by Japanese who planted
patches of sweet potatoes
and manihot. Many of the palms
had the tops broken off or
shattered, said to have been
cut by the Japanese to get the
cabbage. *Paspalum* provides
a good quick cover to cut down
erosion. It has almost taken
over the sweet potato patches.
- small tree 5 m. tall;
leaves dark green
above, glaucous beneath;
flowers clear pale yellow
with maroon center "sirifo"
shrub 2-3 m. tall
"manou"

1946 Truk Is. (Caroline)

- 24505 *Premna obtusifolia* ^(obtusifolia R. Br.)
common in thickets
- 06 *Elsinoë batatas* *Vilgas* ^{(Jenkins) (H. C. Jenkins)}
~~disseminata~~ moist open slopes
- 07 *Polygala*
common on open slopes
along trail

May 27 - Fepan I., Mt.

Chulachapp

small patch of native
forest on steep side of ridge
crest. *Calophyllum inophyllum*, *Ficus*

- 08 *Columella* ~~sp.~~
common
- 09 *Ficus*
several trees in small patch
- 10 *Canavalia* *cathartica* ^{Thomson}
common vine in forest

- 11 *Glochidion*
occasional to common on ridge
and slopes, coming in after clearing
- 12 *Macaranga*
common, coming in after clearing
- 13 *Derris*
common
- 14 *Cynometra*
one large tree seen

Fepan

shrub 3 m. tall.

- "nior umukau"
disease on *Ipomoea batatas*.
flowers white, roots
with wintergreen odor.

sp., *Cynometra*
laced with *Canavalia*
~~and~~ *Merramia*, & *Columella*
vines.

- vine climbing in trees;
flowers green "acherchen"
large tree, sterile.
"au"

vines tangled in trees,
— undoubtedly more than
one plant represented in
collection. flower rose-pink
(only one seen eaten by a larva while
in press) "chochon"

- small tree; flowers
yellow "afor"

small tree, flowers
greenish "up"
— vine climbing in trees,
leaves glaucous beneath,
dark green above; sterile,
"up"

tree 10 m. tall, leaves
glossy above. (ömmö)

May 27 - Mesa Village, Fefan I.
marshes back of beach,
slightly higher ground
back of this, and slopes
above.

74515 ~~Blechnum~~ *Blechnum orientale* L.
cavity in rock of road cut
16 *Ipomoea batatas* L.
along road

17 *Cyperus javanicus*
~~at~~ just above edge of marsh

17 *Phyllanthus niruri* *amarus* Schum.
common weed. det. F. L. W. Schum.
1955

19 *Sida rhombifolia* L.
common weed

20 *Urena lobata* L.

21 *Luffa cylindrica*
common weed

22 *Coelococcus*
occasional in marshes

"nubung"

(wood specimen)

rhizome very short, erect,
75 m. young fronds rose-bronze.
vine creeping on ground.

75 m. flowers lavender, stems
petioles & maroon.
small dense tuft. leaves
slightly glaucous "moirai"
erect "negamani" "nekamani"

erect, 0.8 m tall, flowers
yellow. "siunen"
flowers pink "noknok" (nogond)
vine, climbing over buildings,
bushes, etc. flowers
yellow. "morenof"
tree 12 m. tall, leaves
ascending, flower ~~ing~~
inflorescences ascending,
trunks hard toward outside,
firm but pithy within,
covered with small
incipient roots about
1 cm. long, above with
stubs of old inflorescences,
leaves with sheath
closed below (about 3 dm. 7
old infls. with mature
fruit below leaves.
leaf scars inconspicuous.

May 23 slopes of Mt. Tolowan

- 24523 cultivated slope
Alcornoepha macrophylla
 small patch, cultivated
 on slightly moist ground,
 but not in water.

upper steep wooded ridges
 and slopes, decadent moist
 forest, with some large
 trees.

- 24 *Acalypha*
 thickets near lower edge
 of forest

- 25 *Hoya*
 near top of mountain on open
 ridge.

- 26 near top of mt. on open ridge.
 27 *Procris pedunculata*
 common near top of mountain

erect stem 5 dm. tall,
 leaves up to 2 m., peduncles
 axillary, up to a dozen in
 various stages on one
 plant, each enclosed in
 2 linear bracts. spathe
 bronze purple with green
 base, ~~staminate part~~
 upper part of spike yellow,
 middle part white,
 tessellate, lower part
 with greenish ovaries
 and white stigmas. "kä"

bush 1.5 m. tall (possibly
 extreme form of #24504),
 leaves fleshy
 veins tangled with other
 veins. flowers white
 corona ~~with fleshy pink~~
 vine with yellow flowers.

~~common~~ fleshy herb
 "atataguri" (k)

- 24528 *Centotheca latifolia*
common
- 29 *Glochidion*
common
- 30 *Glochidion*
common
- 31 *Pothos*
common near top of mt
- 32 *Davallia*
shaded slope near top of mountain
- 33 *Pittosporum*
rare, near top of mt.
- 34 *Abrus precatorius*
valley slope
- 35 *Croton*
occasional - near top of mt.
- 36 *Melochia*
occasional in open places
- 37 *Macaranga*
occasional in forest, especially in openings
- 38 *Flagellaria indica*
occasional in brush or bushy woods on or near ridge top.
- 39 *Calophyllum inophyllum*
common in forest
- 40 *Randia carolinensis*
common in forest

"fetin" (applied to grass in general)

- small tree, flowers yellow, seeds red. (fls. & fruits from different trees)
- "amasés"
- great vine climbing in trees, fruit green, rhizome creeping among rocks. "weratu"
- small tree, inner bark with strong oily odor, flowers white "aneput"
- vine, flowers purplish, seeds red with black eye. "kasis"
- bush 1.5 m. tall, flowers white, fragrant. "chem"
- shrub 4 m. tall, fls. pink "tup" (name also applied to *Macaranga*.)
- shrub 4 m. tall, fls. greenish. "tup" (name also applied to #24536)
- vine climbing in trees, fruit pink, thinly fleshy. "nigasi" (h)
- large tree. "regits" (h)
- small tree, 5 m. tall. "regits" "kisinom"

- 24541 Polypcias ^{grandifolia Volk.}
~~the~~ semi open ridge

42 Glochidion

common in forest

43 Canavalia microcarpa cathartica

very common, especially in
 openings and around edges of forest

44 Fagraea berteriana var. pogas (Pook) Rost.
 occasional in forest

45 Clerodendron

~~shrub 1.5 m. tall~~ near lower
 edge of forest

46 Ficus tinctoria

~~not~~ not common

47 Vittaria

on tree trunk near lower edge of
 forest.

48

on tree trunk

49 Polypodium scolopendrium

on tree trunk near lower edge of forest

50 Peperomia

on rocks

51 Ficus prolixa

the ridge, open edge of forest

bush 1 m. tall, leaves
 very glossy, odor slightly
 oily.

small tree, flowers yellow
 "amasés"

Thomas

large vine, climbing over
 trees, flowers magenta.

tree 10 m. tall, buds
 and immature fruits,

fruits pendent "sour"

shrub 1.5 m. tall, buds

white (flowering and fruiting

twigs from different

individuals in same thicket

"etin" and "abucts" - two names

from same informant -

mentioned the fact that there

were two.

small tree, sterile

"avan" (awan)

fronds leathery, arching.

"unen katu"

small form

"chiji" (chichi)

plant fleshy, (lvs. alt.)

small tree 5 m. tall, sterile
 "an"

1946 - 7 mts 1a (Caroline)

- 24552 *Randia carolinensis*
common, this one near lower
edge of forest.
- 53 *Adelphyllis*
rare, lower edge of forest
- 54 *Piper*
common
- 55 *Lagenaria viceraria*
steep open slope below edge of
forest
- 56 *Ficus*
common in forest, this one at
lower edge

small tree, flowers white
"kisinom"

- shrub 2.5 m. tall, fls.
- greenish, fruit green.
- vine climbing on tree trunks
"eras"
- extensive vine with white
flowers. Introduced by
japanese. herbage foetid.
- large banyan tree, 10
m. tall, spreading, mass
of trunks 2-3 m. through
quite solid by anastomosis.
"an"

May 29 - Nomwin I. ~~island~~.
 Luxuriant forest of coconuts,
 Artocarpus and other trees
 with dense undergrowth
 of Polypodium, Nephrolepis,
 Wedelia and a number of
Crataeva speciosa

24557

- 58 *Cordia subcordata*
 near beach
- 59 *Guettarda speciosa*
 occasional, especially near beach
- 60 *Cassytha filiformis*
 near beach, parasitic on various
 plants
- 61 *Terminalia* ^{samoensis} ~~catappa~~
 near beach
- 62 *Cucurbita pepo*
~~central~~ clearing
- 63 *Fimbristylis cymosa* var.
 opening ~~beach~~, common
- 64 *Digitaria* ^{pruriens var. microbachne} ~~pruriens~~
 opening, common
- 65 *Thuarea involuta*
 opening, common
- 66 *Pipturus* ^{argenteus} ~~argenteus~~
 occasional toward outer beach

shrubs, laced with Piper
 and, especially around
 edges, with Canavalia.

"informant" *Abbas* (of Kai)

shrub, flowers white
 zygomorphic, petals on
 one side larger. fruit
 eaten when ripe. "*afu*" "*apuchi*"

shrub 3 m. tall (others
 seen larger), flowers
 bright orange. "*anno*"

wood used for outrigger booms.

shrub 3 m. tall (others
 seen larger trees) "*mosor*"
 wood used to carve bowls

leafless vine greenish-yellow,
 flowers white, fruit green.

"*ölan*" used to line an oven or "*um*"
 bushy tree, 3 m. tall. "*sin*"
 wood used for paddles

extensive creeping vine,
 leaves gray spotted, flowers
 yellow. "*pakin*"

tufts, leaves soft. "*puker*"
 used as stomach medicine"
 tangled

prostrate ~~traces~~ with tips
 ascending, forming a loose
 mat.

shrub 2-3 m. tall, leaves
 whitish beneath. "*aroma*" used for
 fish lines (inner barks)

- 2567 *Pipturus argenteus*
occasional toward outer beach
- 68 *Messerschmidia argentea* (L.) Johnston.
along outer beach
- 69 *Triumfetta procumbens* Forst.
along passage beach
- 70 *Ficus tinctoria*
occasional in forest
- 71 *Eugenia javanica*?
occasional in forest
- 72 *Polyphorus* ~~*Trametes*~~ *cingulata* Bats.
on decaying log in forest.
- 73 ^{phorus} ~~*Leucobryum*~~ *glaucescens*
^{coconut}
on tree trunk near beach
- 74 *Hedyotis biflora*
on ground in forest in a spot
free of undergrowth
- 75 *Achyranthes indica* ~~*aspera*~~
scattered especially along
trails and in openings

- shrub 3 m. tall, "aroma"
leaves white beneath "affolpat"
"amolest" "amolest" ^{carve bowls from wood.}
- wood used for canoe connecting diving goggles
bush 3 m. tall, other
seen 6 m. fls. white, leaves
fleshy, silvery green.
stems prostrate with
branches ascending, fls.
yellow. "kumim"
- small tree, 5 m. tall; ^{large} ripe fruit orange ^{cooked and eaten.}
rarely fruiting. "awam"
great tree 20 m. tall, 8 dm.
thick; more or less cauliflorous,
infls. both on trunk, limbs
and smaller branches, fls.
white. "faniaf" fruit eaten raw,
wood used for outrigger boms.
"selingen am" (devil's ear)
- pale green cushion
"lumen nu" (coconut moss)
- prostrate; leaves sub-fleshy,
white beneath; fls. white
"opuson"
- erect herb. "likö" may be pronounced
"ligö."

- 24576 *Callicarpa cardicans* (Blume, F.) Hochr.
rare, one seen in open woods
"apuri" used for boom on model canoes.
- 77 *Tacca leontopodioides*
common especially in open places
found on all small islands.
- 78 *Morinda citrifolia* L.
common
- 79 *Guettarda speciosa*
occasional in forest
- 80 *Piper fragile*
very abundant
- 81 *Wedelia biflora*
abundant, one of principal
plants in undergrowth
- 82 *Glochidion* sp.
common in undergrowth
- 83 *Polypodium scolopendrium*
common, forming a large
part of undergrowth
on ground and climbing tree trunks
- 84 *Nephrolepis hirsutula*?
most abundant plant
in undergrowth

shrub 3 m. long, fls. purple

scape erect, leaves
with 3 main divisions
"moke(u) moke" starch made from tubers
usually wild but sometimes planted.
shrub 2-3 m. tall,
fl. & fruit white. "nen"
(in Truk "aring" or "nobur").
fruit eaten in time of famine.
suckers shoot from tree
20 m. tall, 5 dm. thick.

vine on ground and
climbing on tree trunks,
sterile. leaves glossy.
"atukupui"
erect, 1-2 m. tall, fls.
yellow. "atuat"

shrub 1-3 m. tall, fls.
yellow, fruit green.
"efor" used for house rafters.

"chi(i) chi"

fronds more or less
erect, spreading by stolons
"amere"

- 24585 *Scaevola* ^{sericea} ~~frutescens~~
fringing the beaches, not
in forest
- 86 *Canavalia* ^{cathartica} ~~microcarpa~~ ^{Thomson}
very common, especially near
beaches, ~~climbing~~
- 87 *Plumeria* ^{rubra} L.
cultivated ornamental
- 88 *Hernandia* ~~virgata~~ ^{virgata} ~~sonchifolia~~ L.
cultivated ornamental
- 89 *Dioscorea bulbifera* L.
occasional in forest
- 90 *Alocasia macrorrhiza*
very common both in
swampy land and about
houses in the village,
actually becoming weedy
- 91 *Artocarpus altilis*
forming a dense forest
~~in center of~~ in center of
island back of village
elsewhere mixed with coir.
- 92 *Amurcandia*
on rotting breadfruit log
- 93 *Eleusine indica* (L.) Gaertn.
one plant only seen on pier
- 94 *Fimbristylis cymosa* R.Br. var.
rare on sand spit (with 24597)

Nomwin Atoll

- shrub 1.5 m. tall,
rounded, spreading,
fls. white, fruits white,
fleshy. "nat"
vine, climbing over trees,
fls. rose pink. pods on
dead vines. "wal" leaves used
for medicine for stomach. Leds
from flowers.
- small tree "soin".
latex abundant, fls. yellow
and cream.
shrub 2 m. tall, leaves
glossy.
vine, sterile.
- plants all sizes, up
to 1.5 or more m. tall,
caulescent. "ka"
- great trees up to 25 m. tall
fruit rather small
and cylindric.
- gelatinous, tough.
- tufts; leaves stiff

- 24595 *Euphorbia chamissonis* Binn.
common very locally on
sand spit.
- 96 *Portulaca ~~quadricata~~ ^{sumrensis}* v. Poellm.
only one small plant seen
on sand spit.
- 97 *Fimbristylis cynosu* R.Br. var.
common on sand spit,
(with #24594)
- 98 *Thalassia hemprichii* ?
abundant in shallow water
of lagoon near shore
- 99 *Colocasia esculenta*
cultivated in trenches dug
down to water level in
forest.
- 24600 *Cyrtosperma ^{merkussi} (Hosk.) Schott.* DHN:lon 6/1998
chamissonis
cultivated in trenches and
marshy places dug down to
water level.
- 01 *Pandanus tectorius*
common on ~~sand spit~~ outer
beach
- 02 *Musa sapientum*
planted in trenches in forest,
with croids, not abundant.
- 03 *Soulamea amara* Lam.
common locally on broken
coral near outer beach

- plant spreading-ascending,
lactiferous, sub-fleshy,
~~leaf~~ leaves whitish beneath,
fls. greenish, slightly sticky.
"not"
- plant prostrate, leaves
fleshy, flower yellow, 1.5 cm.
across.
- tufts, leaves stiff.
- rhizomes and leaf bases white.
- sterile; petioles green, other
plants seen with reddish
petioles.
- plants up to 2 m. tall,
prickliness variable
(leaves from different plants).
- pyramidal tree 6 m. tall
fruits from ground beneath.
(a much longer leaved form
planted in interior, used
for weaving mats.
- plant about 2 m. tall,
young
- shrubs 2-3 m. tall

24604 *Crataeva speciosa*

common, especially in village

05 *Terminalia catappa* ^{samoensis} Rech.

rare, near outer beach

06 *Calophyllum inophyllum*

occasional, this one near inner beach.

07 *Digitaria pruriens* var. *microbachne* approaching

common near inner beach

08 *Lepturus repens* var. *subulatus*

common to occasional near inner beach

Island flat, no trace of raised coral. mostly sandy except for outer beach and a narrow strip in from it, which are of broken coral.

The central part of the island is occupied by a dense forest of great breadfruit trees, up to 20 or 25 m. tall. Where this breadfruit is thickest, the undergrowth is rather sparse, but toward periphery the breadfruit becomes mixed with coconut and not so dense. Here the undergrowth of *Nephrolepis*, *Polypodium*, *Wedelia*, *Piper* becomes very dense and 1-1.5 m. deep, with common shrubs of *Glochidion*, *Ficus tinctorius*, *Morinda citrifolia*, *Eugenia*, etc.. Toward the outer beach *Pandanus*, *Cordia*,

Guettarda speciosa

fls. white.

small tree 4 m. tall,

flowers white.

small, sterile tree 6 m. tall.

var. *pruriens*

creeping

Pipturus, *Messerschmidia*, *Terminalia* and #24603 become common. *Scaevola* forms a dense fringe around the outer and passage beaches, growing to a height of 3 or 4 meters.

In small openings and clearings *Fimbristylis*, *Digitaria*, *Thuarea*, and *Lepturus* cover the ground. In open places very near the beach *Triumfetta* is common, *Fimbristylis* is more common than inland, and *Cassytha* is common, strangling everything from grasses to small trees.

On a sand spit running out along the reef *Scaevola* and *Messerschmidia* are the dominant plants, forming an open bush, while two

Especially toward the beaches *Canavalia* sp. is abundant and *Samanea* the trees and shrubs.

forms of *Fimbristylis cyrrosa*, *Euphorbia* sp. are common in the intervals. Here a single plant of *Portulaca quadrifida* and a small sterile seedling of *Ipomoea pes-caprae* were seen.

Tacca, *Dioscorea*, and one or two sterile *Ipomoea*s are scattered over the island. The *Tacca* is used to make starch and, though usually growing wild, is occasionally deliberately planted. It was not seen on the beach.

Around the village and scattered houses the most conspicuous plant besides *Cocos*, is *Crataeva*, which is planted everywhere to furnish fruits for food. Hedges are made up of a *Hibiscus* (*rosa-sinensis* or a hybrid), and a sterile *Polypcias* with finely cut leaves. *Plumeria* is occasional, as is a large *Crinum* (both a white and a red form growing together). *Alocasia macrorrhiza* is common everywhere about the village, even becoming weedy and growing in much reduced form along paths. *Pandanus* is occasional, but was all sterile.

Toward the interior a series of excavations have been made and filled with organic matter, forming a peaty mud. Here *Cyrtosperma*, ^{and at least 2 forms of} *Colocasia*, are grown, with *Alocasia* and *Musa* on the slightly higher but wet ground around them.

The *Artocarpus* is quite variable in leaf outline and fruit shape, size, and surface. Pelyer and Elbert got names of a dozen or more varieties. I had no time to make any attempt to study them.

The *Pandanus* observed growing commonly ^{along} ~~the~~ the outer beach (#24601) is a short leaved small fruited form. Inland a *Pandanus* is commonly planted, apparently for mat-weaving, which, perhaps because of habitat, is much more luxuriant and longer leaved. It was all single erect stems about 1-1.5 m. tall.

Cucurbita pepo was occasionally cultivated but did not appear to fruit much.

Obviously *Cocos nucifera* and ~~*Artocarpus*~~ *Artocarpus altilis* are the important food plants. *Alocasia* and *Cyrtosperma* and *Tacca* are also important. *Crataeva*, *Canis*, *Pandanus*, *Eugenia*, *Ficus*, and *Morinda* furnish fruits that are eaten. *Colocasia* is a food plant, but was not seen in any great abundance. *Cucurbita* is not abundant. Judging by the size of the *Musa* plants, they have not been cultivated for any length of time yet and must be in a more or less experimental stage. It was not discovered whether or not the *Dioscorea* is eaten. *Ipomoea batatas* ~~is~~ very sparingly planted but obviously does not thrive.

The wood of *Glochidion* is used for house rafters, that of *Artocarpus* for general construction and apparently canoe hulls, that of *Eugenia* ^{and *Cordia*} for outrigger booms, that of *Messerschmidia* for carved bowls, diving goggles and canoe connectives, that of *Terminalia catappa* for paddles, and that of *Guettarda* for carved bowls.

The inner bark of *Pipturus* is used for fish-lines.

Pandanus leaves are used for weaving mats.

Coconut leaves are used for house coverings, rough baskets, young leaves for fans and hats, etc.

Canavalia and *Fimbristylis* are said to be used as medicines for stomach ailments.

Cassipourea filiformis is said to be used to line ovens.

Leis are made from *Canavalia* flowers and *Plumeria* flowers are worn in the ear by young people to indicate that they are thinking of the opposite sex.

The Truk Archipelago is extremely varied in topography, soil and underlying rock. It is an enormous barrier reef with a number of motus. Inside are numerous islands of all sizes, from high mountainous rugged ones to small flat coral islands.

On the volcanic islands parts are underlain by deeply weathered tuff, part by hard flow lava. Some have the lower terraces of coral rubble. Great talus slopes have accumulated at the foot of the basaltic cliffs on such islands as ~~the tuff~~ ^{the tuff, especially} Toland and Dublin. This has become weathered in most places.

The tuff, especially, has weathered into a dark red-brown sticky soil with a high colloidal content, as evidenced by cracking when it dries out.

The high islands were obviously once forested. Now only remnants of this forest persist on the highest peaks and high steep slopes on a few of the larger islands, as Tol (best), Dublin, Fepan, Moen. Important trees in this are *Cynometra*, *Ficus* (*tinctoria* and sp. #24556), *Calophyllum inophyllum*, *Randia carolinensis*, #24463, a ptychospermate palm, *Glochidion*, *Macaranga*, *Fagraea*, several *Araliaceae*, and several others. ~~trees~~ shrubs, as *Psychotria* (24456, 24457), *Acalypha*, *Pipturus* (24464, 24467), *Clerodendron* (24545), *Allophyllus* (24553), are reasonably common. *Cratogeomys* (24535), *Pittosporum*, *Psychotria* (24460), etc. are rare. On the ground, at least along trails,

Geocardia herbacea and *Centotheca latifolia* are common. The latter making up much of the ground cover, along with several ferns. *Piper* (2 sp.), *Columella* (?), *Ipomoea* sp. (24413), *Merremia*, and, in places, *Canavalia* are common vines, but, perhaps with the exception of the *Pipers* and *Columella* may be invaders from below where the forest has been damaged. *Pothos* (2) (24531) is occasional as a liana climbing in trees. ~~This forest was not seen~~

This forest was not seen anywhere below about 200 m. and varied in composition, but not much in aspect, from place to place. The higher portions are true montane rain-forest, with leaf epiphytes abundant. Trunk epiphytes, mostly *Polypodium*, *Vittaria*, etc. are common throughout.

Something similar to this may well have been the natural vegetation from the foot of the slopes up to 200 m., as in places higher where the forest was destroyed or damaged, the plants that tend to come back are those commonly found on the lower slopes. Here the natural forest has been

completely destroyed, probably for a long time, and replaced by a forest-like cover of *Cocos* and *Artocarpus*, with various subsidiary shrubs and small trees and a ground cover of grasses and ferns. *Aplismenus*, *Cestotheca*, *Replisolepis*, etc. are common in this.

Many weeds are abundant. These have been much encouraged by the cutting of considerable areas of the breadfruit and coconut during the war by the Japanese. *Paspalum dilatatum* ^{scrubland} ~~conjugatum~~, *Conjugatum*, *Orbicularia*, *Emilia sonchifolia*, *Sida acuta*, *Ageratum conyzoides* and many other weeds are common. *Ipomoea* sp. (24413), *Merremia*, *Canavalia*, etc. cover large areas. In some open places small braves of *Miscanthus japonicus* are found, but not as abundant as might be expected.

The aggressive secondary shrubs or small trees that tend to come in here are *Glochidion*, *Acalypha*, *Macaranga*, 2 *Sterculiaceae*, *Morinda citrifolia*, etc.

In the openings cleared

by the Japanese every available square foot was planted to sweet potatoes and manihot. The natives are neglecting these, especially the sweet potatoes now and grass is taking possession, growing very luxuriantly.

Mangifera indica is scattered here and there, as are thickets of *Hibiscus tiliaceus*. Shrubs and vines follow and already the Japanese trails are so overgrown that they cannot be used. Erosion does not long remain a serious problem, as the growth is very heavy.

The terrace at the foot of the slope is usually little above sea level. In most places it is fringed with typical mangrove swamp, with 2 sp. of *Bruguiera*, *Rhizophora mucronata*, *Sonneratia caseolaris*, ~~Excoecaria~~ *Excoecaria agallocha*, and two other trees very common. *Rhizophora* usually dominant, *Acrostichum aureum* common, also *Clerodendron* sp.

Back of this is land that is occupied by houses, door-yard cultivation such as citrus

aurantiifolia, bread-fruit, coconut, *Alcorasia*, ~~etc.~~ *Carica*, *Manihot*

Here also are fresh or brackish marshes with great masses of *Scleria*, ^{pusillifolia} etc. and where *Colocasia* and *Cyrtosperma* are cultivated. *Iporroea reptans* is common here, said to have been introduced by the Japanese. It is eaten as greens. A large grass occupies great areas of marsh on Moen. In more brackish areas *Paspalum vaginatum* forms pure stands. ^{*Cyperus javanicus* is common}

Along tidal channels into these marshes are thickets of *Barringtonia racemosa* and *Nipa puticans*.

Spontaneous trees and shrubs are *Mangifera*, *Morinda*, *Hernandia*, *Hibiscus tiliaceus*, *Thespesia*, *Pandanus*, etc. *Ceiba* and *Casuarina* appear to be planted.

Some of the common tropical cultivated plants are raised in dooryards as ornamentals - *Hibiscus rosa-sinensis*, *Allamanda*, *Lantana*, *Polyscias* (2 sp.), *Euphorbia heterophylla*.

Weeds are the most obvious part of the vegetation - *Eleusine indica*, *Jussiaea suffruticosa*, *Urena lobata*, *Sida acuta*, *Luffa cylindrica*, *Cenchrus echinatus*.

Vigna marina in places covers large areas. Just below headquarters it has spread up the lowermost slopes and is covering some of the bare scars of bulldozer activity, preventing erosion.

Missing

24609-24669

Tree
Moer
Pis

24690, 91

Pungy?

4
24609

aroline)

rd main
oken, Moen.
9 Mt.)dfruit and
of it cleared
sweet potatoes
h overgrown
clum con-
robiculatum(?)
) Scleria sp.)poricus
vines ofence (Kaneh.) Mleff.
rods on ridge

- 10 *Randia carolinensis*
common in woods on high ridge

- 11 *Ficus*
common in woods on high ridge,
this specimen, at least, a
strangler, growing around a
Schefflera

- 12 *Schefflera* *lanceolata* Harms
occasional in woods on high ridge

- 13 *Digitaria*
abundant on upper open slopes

moen ?

main ridge with
patches of original
forest alternating with
cleared places, these
on more or less level
places. Forest of *Ficus*,
Cynometra, *Schefflera*, etc.,
quite wet, trees large.

- Tree 8 m. tall, 2.5 dm. thick,
wood rather hard, fruits
pale green, skeletons of
old ones persisting in whole tree.
— shrub 3 m. tall; flower
white, odorless, fruits not
mature.
— large tree, with a mass of
trunks; fruit pinkish.

- fairly large tree, being
strangled by *Ficus*, about
3-10 spikes at summit
of branch, flowers
white, fruit green.
— tangled culms forming a
heavy ground cover.

June 2 - slopes and main ridge of Mt. Teroken, Moenl.
(Chukumong Mt.)

slopes with breadfruit and coconut, much of it cleared and planted to sweet potatoes now very much overgrown by grasses - *Paspalum conjugatum* and *P. serotum* (L.)
Digitaria sp. ( ), *Scleria* sp.,
Miscanthus japonicus forming thickets, vines of *Messerschmidia*, etc.

⁴
75609 *Astronidium carolinense* (Kaneh.) M. K. S. P.
occasional in woods on ridge

10 *Randia carolinensis*
common in woods on high ridge

11 *Ficus*
common in woods on high ridge, this specimen, at least, a strangler, growing around a *Schefflera*

12 *Schefflera* *lanceolata* Harms
occasional in woods on high ridge

13 *Digitaria*
abundant on upper open slopes

main ridge with patches of original forest alternating with cleared places, these on more or less level places. Forest of *Ficus*, *Cynometra*, *Schefflera*, etc., quite wet, trees large.

Tree 8 m. tall, 2.5 dm. thick, wood rather hard, fruits pale green, skeletons of old ones persisting on whole tree.
— shrub 3 m. tall; flower white, odorless, fruits not mature.
— large tree, with a mass of trunks; fruit pinkish.

fairly large tree, being strangled by *Ficus*, about 8-10 spikes at summit of branch, flowers white, fruit green.
— tangled culms forming a heavy ground cover.

23

June 3 - Pis I., north side of
Truk Barrier Reef.

flat coral island with a little
slightly raised coral at west end,
completely wooded, mostly
with *Cocos* and *Artocarpus*.
rocky toward outer beach,
sandy over most of island,
large depressions filled with
muck in interior where
Cyrtosperma is raised extensively.
General undergrowth of
ferns and *Wedelia*, grass
in openings.

24614 *Ximenesia americana* L.
rare, at top of outer beach

15 ~~*Calophyllum*~~ *Terminalia*
occasional around beaches

16 ~~*Calophyllum*~~ *Passiflora* *Ochroma* *odoratus*
rare, no plant seen

17 *Scaevola frutescens* (Mill.) Kr.
common, fringing outer
and passage beaches

18 *Fimbristylis*
occasional, common on outer beach

19 *Triumfetta procumbens*
occasional on beaches,
shaded.

20 *Cordia subcordata* Lam
along beaches, especially inner one,
near houses.

Cucurbita pepo = "pakin"
Carica papaya = "kipan"

bush, 1.5 m. tall, rounded,
weakly spiny, leaves
thick, yellow-green;
flowers yellow within,
green without. "anno" or "ano"
shrub 2 m. tall, leaves
leathery, flowers white
"sin"

Ref. Merr. shrub 1.5 m. tall, sterile.
"atit" "nanin"
rounded shrub 3 m. tall,
flowers white. "not"

caespitose tufts, leaves
not especially stiff. "poker"
stems prostrate, branches
erect; fls. yellow. "kinin"

tree 6 m. tall, rounded; flowers
orange, fragrant. "anikat"

- 24621 *Cassytha filiformis* L.
common on outer beach,
parasitic on various low plants.
- 22 *Cinnam*
commonly cultivated
- 23 *Glochidion*
occasional in undergrowth
- 24 *Ixora macrothysa* Cass. Hance
rare, cultivated as ornamental
- 25 *Rhoeo discolor*
persisting after cultivation
- 26 *Eragrostis amabilis*
weedy sandy places near
inner beach.
- 27 *Eleusine indica* (L.) Gaertn.
weedy sandy places near
inner beach.
- 28 *Digitaria pruriens* var. *microbachne*
common in open sandy
places, especially near
inner beach
- 29 *Portulaca quadrifida*
common in weedy places
outside of forest, along road
- 30 *Soulamea amara* Lam.
common along outer beach on
rock

- leafless, stems yellow-
green, flowers white,
fruit green. "tik"
- plant 1 m. tall, fls. white
(red flowered form also grown
with it). filaments purple.
peduncles slightly compressed
"sip"
- shrub 1.5 m. tall,
fl. yellow. "efor" "efor"
- shrub 2.5 m. tall, inf.
dull red, flowers scarlet.
"atin"
under sides of leaves
and bracts maroon-purple.
said to have been introduced
by Japane. leaves fleshy, brittle.
- spreading tufts.

tufts.

covering ground.

- prostrate, flowers yellow.
root enlarged, plant
fleshy, leaves in flat
masses. "chinkis"
- shrubs 2 m. tall, flowers
whitish, fruit green.
"maras"

- 24631 *Plumeria rubra* L.
cultivated sparingly

32

large beds in shallow water on fringing reef in "Lagoon" almost exposed at low tide.

33

- Polyscias grandifolia* Vahl.
shade, especially in edge of forest.

34

- Ipomoea alba* L.
edge of forest near outer beach

35

- Oplismenus compositus*
common in forest, carpeting ground

36

- Ipomoea littoralis* Bl.
occasional in woods

37

- Dioscorea bulbifera*
common in woods

38

- Achyranthes aspera*
rare in woods along trail

39

- Hymenocallis littoralis*
rare in small clearing

40

- Paspalum conjugatum*
common along trails and in slight openings in woods

small tree 4 m. tall, very lactiferous. flowers fragrant, cream and yellow.
"seu"

succulent, rhizome white, leaves distichous.
"muchamuch" or "anot"

with celery odor when broken
shrubs less than 2 m. tall, fruiting when less than 1 m. inflorescence very lax. "atenichen"

vine climbing over shrubs
"afamach"

prostrate to ascending, loose

sterile vine "muke" or "muge"

vine climbing on shrubs and trees, sterile, tubers eaten by natives. "apureka"

erect herb 1 m. tall.
"nikoke"

flowers white, peduncle compressed, with sharp edges. "sip"
spreading by runners, forming a dense growth.

- 24641 *Wedelia biflora*
one of dominants in undergrowth
- 42 *Artocarpus altilis*
about dwellings
- 43 *Bruguiera*
in marshes on the landward
side of the road on the passage
beach.
- 44 *Asplenium nidus*
on coconut stump, rare
- 45 *Pennisetum obtusifolium* R. Br. (Lobelia leaves)
edge of forest, near dwellings
- 46 *Clerodendron*
small marshy places
- 47 *Flourea*
on coral boulders and along
road
- 48 *Guettarda speciosa*
occasional along beaches
- 49 *Dryopteris gozzilodius*
seen only in much
soil in Cyrtosperma patch
- 50 *Nicotiana glauca* L.
cultivated around dwellings,
a few plants at a time
- 51 *Rolyporus sanguineus* L. ex Fr.
on old rotting post
- 52 *Schizophyllum commune* Fr.
on old rotting post

- erect herb 1 m. tall, "atrot"
flowers yellow
- tree 10 m. tall, fruit
immature, seed bearing.
variety "mai" var. "oneai"
- small tree 3-4 m. tall
calyx green, petals dull
orange. "ong"
- small plants, not
especially thriving "nuka"
- shrub 4 m. tall "umubrai"
- scrambling shrub,
forming low thicket,
corolla white, stamens purple.
"apuechi"
- stems red, fleshy, petioles
and cyathes red. "anifitru"
- shrub 2 m. tall "mosoi"
- all plants examined were
sterile. "amare"
- herb 1 m. tall, flowers
pink "suba"
- color orange-red, deeper below.
"seringen ano"
- color dull white

- 24653 *Crataeva speciosa* Volk.
religiosa
sparingly cultivated "
- 54 *Pittosporum*
sparingly cultivated around
houses, said to have come from
Pis I., not from higher islands.
- 55 *Messerschmidia argentea*
common along outer and passage
beaches
- 56 *Hernandia ~~peltata~~ ovigera*
one plant seen along ~~west~~ beach
- 57 *Vigna maina*
common near beaches
- "
- 58 *Hedyotis biflora*
common in disturbed places
- 59 *Lepturus repens* (Forst.)
occasional near outer
and passage beaches
- 60 *Derris trifoliata*
common in edge of forest
and around eroded coral
boulders near ~~pass~~ west beach
- 61 *Ficus tinctoria*
occasional in forest
- 62 *Callicarpa*
rare in edge of forest at
west end

- shrub 2-3 m. tall, sterile.
"apuch"
small shrub 1.5 m. tall,
inner bark with an oily
aromatic odor, said to be used
to rub on hair. "avenges"
small tree, leaves fleshy,
silvery green, flowers white,
somewhat fragrant. "chen"
small sterile bush 2 m.
tall, leaves somewhat
fleshy. "akurang"
prostrate, carpeting
ground, peduncles
erect, flowers yellow,
keel straight. "nönukra"
prostrate; leaves sub-fleshy,
pale beneath; flowers
white, tube swollen, lobes
divergent. "sing"
spreading by runners

leathery leaved vine,
leaves glossy, dark
green, unipinnate and
tripinnate on same plant.
"unripot"

- shrub 2 m. tall, sterile
"anan"
shrub 2 m. tall "kotu"

724663 *Morinda citrifolia*

common

64 *Pisonia grandis*

rare on west end

65 *Canavalia microcarpa* ^{catartica Thomas}

occasional on west end
and in edges of forest

66 *Pemphis acidula*

common on eroded coral
blocks at west end

67 *Terminalia catappa* L.

one seen, near habitation

68 *Vernonia cinerea*

occasional in disturbed places.

69 *Euphorbia prostrata*

common around village

70 *Physalis*

rare in disturbed ground

71 *Euphorbia hirta*

occasional in sandy place
among dwellings

72 *Phyllanthus ~~amurensis~~* ^{amarus Schumacher & Th. det. G. L. Webster 1955}

common in weedy places

73 *Gomphrena globosa*

cultivated (rare)

74 *Mirabilis jalapa* L.

cultivated (rare)

75 *Cyperus javanicus*

occasional

76 *Stachytarpheta*

rare in weedy places

shrub 2 m. tall

"nobui"

seedling, no large
plants seen. "noki"

large vine, flowers
rose pink "onuka" "vuka"

small trees, flowers

white (mostly fruiting)
younger leaves thin, astringent to taste,
older ones fleshy, sally-astringent. "engi"

shrub 3 m. tall, flowers

white "asas"

flowers purplish.

prostrate, stems red.

"kichihi"

flowers pale yellow

with maroon center "tomato"

plant purplish

erect (others seen much
taller)

heads magenta

bushy herb 4 dm. tall

"meribisa"

caespitose, bracts

exceedingly long (other
plants seen smaller)

"nikannon"

herb 0.3 m. tall, flowers
deep purple-blue

"sagura"

- 24677 *Psilotum nudum*
rare at bases of coconut trees
in edge of forest
- 78 *Nephrolepis*
abundant in undergrowth
- 79
common in undergrowth
- 80 *Acalypha*
common in undergrowth
especially toward
inner beach
- 81 ~~*Manisuris granulata*~~
common near inner beach
- 82 *Thuarea involuta*
common in open or semi-
open places
- 83 *Calophyllum inophyllum*
occasional along beaches
- 84 *Thespesia populnea*
rare along beach
- 85 *Centella asiatica*
common along inner beach
in village
- 86 *Polypodium scolopendrium*
common everywhere in
undergrowth and climbing
on tree trunks and stumps
- 87 *Cordyline terminalis*
rare around village

caespitose

spreading by slender stolons,
fronds erect "amäre"

main stems decumbent,
branches erect; flowers
small, white, hidden
by bracts. "erion"

shrub 0.5-1.5 m. tall,
mostly single stems
rarely or sparsely
branched, ~~stap~~ stylis-
ed. Specimens from
a number of plants.
prostrate "manon"

~~"feticia"~~ "niap" "feticia niap"
prostrate, forming
mats "feticia"

small tree 7 m. tall
"rekit"

small tree, sterile
"pörö"

prostrate "nikolokot"

"chichi"

shrub 2 m. tall "tiri"

24638

Piper fragile Benth. det. Juncher 1955
everywhere in forest

89

Barringtonia asiatica
rare around village

90

on rotting log

June 4 - Moen I., saddle bet.
Mt. Teroken and Mt. Tonaachan

91

on rotting stump partly covered
with earth.

The coral island flora, as exemplified by Pis I. is rich, compared with many such islands. The rainfall is so high that a tall forest of *Cocos* and *Artocarpus* is supported, with deep undergrowth of *Wedelia*, *Acalypha*, *Nephrolepis*, *Polypodium*, *Polyscias*, and with deep grass - *Paspalum conjugatum*, *Digitaria*, etc. in disturbed places. In the undergrowth shrubs of *Ficus tinctoria*, *Glochidion*, *Morinda*, etc. are occasional. Extensive low areas, even several acres, possibly artificial, are filled with deep soft mud. Here *Cyrtosperma* is abundant.

On raised limestone, of which there is little on Pis, *Pemphis acidula* grows to small

Piper is
common
on tree
trunks.

vine covering tree-trunks
and on ground. "éres"

sterile small tree
"kum"

"seingen anu"

glows in darkness with a
strong green light.

tree size. *Scaevola*, *Lepturus*, *Messerschmidia*, etc. are only found on the extreme edges, at the top of the beach, especially on the outer beach, which has a strip of ~~trees~~ *Messerschmidia*, *Pandanus*, *Soulaurea*, etc. fringed with *Scaevola*. *Ipomoea alba* is ~~very common~~ *Vigna* such as *Vigna* sp., *Canavalia*, ~~etc.~~ found sparingly here, also *Canavalia*. *Vigna mangle* covers some of the open land, with *Triumfetta*, *Cassytha*, *Thouarea*, etc.

Principal ~~area~~ food plants are *Cocos*, *Artocarpus*, *Cyrtosperma*, with *Musa*, *Crataeva*, *Pandanus*, *Ipomoea batatas*.

Tobacco is sparingly cultivated.
Ornamentals are *Crinum*
(2 forms - white & red), *Hymenocallis*, *Polyscias* sp., *Plumeria*,
Gomphrena globosa, *Mirabilis*,
etc.

Trees around the village
are *Cordia subcordata*, *Thespesia*,
Hernandia, *Terminalia* sp.,
Pittosporum, *Cocos*, *Artocarpus*

A slight development of
mangrove formation is evidenced
by a few *Rhizophora* and *Bruquiera*
trees.

The relatively richer flora
of Pis than Norwin may
well be a reflection of the
nearness of high islands.
Acalypha, *Pittosporum*,
Cordyline, *Oplismenus*, *Rhizophora*,
Bruquiera, *Dryopteris*, *Psilotum*,
Derris, *Vigna*, *Manisuris*, etc.
and many weeds may be
evidence of this. Both natural
means and frequency of
human transportation are
probably involved in this.

June 5 - flats near Baker Dock
Moer D.

Broad flat of somewhat raised coral gravel. Openings weedy, with Eleusine, several Euphorbias, Digitaria, Paspalum conjugatum, Ipomoea, Piper, Fimbristylis, Sida acuta, etc.

Mangrove swamp occupies a portion of this, mostly Rhizophora but considerable Sonneratia, some Bruguiera, Excoecaria, Scaevola, Luminitzera, Allophylus, etc.

One part has large Artocarpus

24692 *Ipomoea littoralis* Bl.
very common on sandy flats
and at edge of mangrove swamp

93 *Fimbristylis*
roadway of coral across
mangrove swamp

94 *Glochidion*
occasional on coral flat

95 *Carica papaya*
common coral flat

with vines - Piper, Ipomoea, Wedelia (!) climbing up trunks, some Pandanus, 2 sp. *Glochidion*, etc.

Tacca is occasional.
Cyperus sp., large grass,
sterile *Miscanthus japonicus*.

herbaceous vine, on ground
and climbing over bushes,
flowers still open at 10 a.m.
bright rose-purple, deeper
in center.

caespitose, leaves only
somewhat stiff.

small tree, fruit with
base of style enlarged,
dark green; fls. yellow.
erect dioecious plant,
single stem with crown
of large leaves, flowers
white, this tree male. Fruits
seen on others all very small,
5 cm. diam. spherical.

- 4708 *Barringtonia asiatica* L.
mangrove swamp on coral sand
- 09 *Allophylus*
edges of mangrove swamp
- 10 *Ficus tinctoria* Forst
edges of mangrove swamp

tree 6 m. tall.

shrub 2.5 m. tall,
fls. white; fruit scarlet,
double.

small tree, ripe fruit
light orange.

June 8, 1946 - Mt. Lasso, n. central
Tinian I. 500 ft.

remnants of old forest
persisting on dissected coral
limestone around house

- 24711 *Taeniophyllum mariannense*
epiphytic on *Cynometra* trees.
- ✓ 12 *Cynometra ramiflora*
commonest tree

- ✓ 13 *Pipturus argenteus*

June 8, 1946 - "Palm Beach", west
central coast of Tinian I.
near top of limestone sea cliffs

- ✓ 14 *Hedyotis foetida* var. *mariannensis*
rock ledges

- ✓ 15 *Phyllanthus marianus*

June 8, - Lake Hagoya,
northern end of Tinian I.,
abandoned cultivated ~~about 100~~
ground

- ✓ 16 *Amaranthus viridis*
hard trampled ground
- ✓ 17 *Lesbania cannabina*

stuck flat to bark, fruit
- green, peduncle thick.
Tree 3 m. tall with
buttressed trunk 3 dm.
thick, leaves glossy
- dark green.
small tree 3 m. tall,
ripe fruit white, fleshy,
leaves relatively smooth
above.

sub-shrub up to 1 m. tall,
with foetid odor when broken,
flowers white, corolla
- funnelform, lobes erect.
shrub up to 0.7 dm. tall,
leaves sensitive, whole
branchlets of them closing
up when put in press.

prostrate

erect slender herbs 2 m. tall, leaves
somewhat sensitive, flowers yellow.

~~was~~ June 3 - south end of
Tinian I., 250 ft.

limestone terrace

24713 *Canthium*
thickets

✓ 19 ~~*Delonix*~~ *Blechnum marianense* (A.D.C.) Koidy.
thickets

✓ 20 *Jasminum marianum* DC.
thickets

✓ 21 *Psychotria mariana*
thickets

✓ 22 *Eugenia palumbis* Merr.
thickets

June 3 - plateau 1 mi. n. of
Tinian, Tinian I. 250 ft.
cultivated in garden

✓ 23 *Graptophyllum pictum*

✓ 24 *Pseuderanthemum atropurpureum*

shrub 1-2 m. tall, scrambling,
immature fruit dull
pinkish.

shrub 2 m. tall,
somewhat lactiferous;
buds green.
— scrambling shrub.

shrub 1 m. tall, flowers
white, fruit red.
stipules ovate, not
calyptrate.

— low shrub 0.5 m. tall,
fruit red when ripe.

bush 1 m. tall, leaves
with irregular white
centers. some twigs
with leaves green; flowers
purple.

— shrub 1.5 m. tall, leaves
deep irregular bronze-
purple; corollas with
one erect, 2 horizontal and
one downward-pointing lobe,
pink, closely speckled
with deep pink.

June 8. - Camp Churo, near
center of Tinian I. 100 m.
roadside and cultivated ground.

24725

rust on *Euphorbia prostrata*

✓ 26 *Bauhinia monandra*
cultivated ornamental

✓ 27 *Cassia glauca*
cultivated ornamental

✓ 28 *Zoysia matrella* *terrestris* Trin.
cultivated as lawn

June 9 same

✓ 29 *Amaranthus viridis*
near buildings, occasional

✓ 30 *Amaranthus spinosus*
near buildings, common

June 9 near Marpo Wells,
Tinian I.
abandoned cultivated land,
in and around large sink-hole.

✓ 31 *Ficus moultonii* var.
roadside

✓ 32 *Phragmites australis*
deep ~~grass~~ ^{reed} lake in bottom
of sink-hole

✓ 33 *Peperomia elliptica*
around bases of trees in
sink hole.

causing the normally
prostrate host to grow
erect.

shrub 2 m. tall; flowers
pink, lower petal
conspicuously spotted
with red.

small tree 3 m. tall,
leaves slightly glaucous,
flowers yellow.
forming a dense soft
carpet, not pungent.

erect herb, branching

erect herb 1 m. tall, stem
fleshy, branching.

banyan-type of *Ficus*, dense
rounded top. figs green.
canes 2-3 m. tall.

sterile woody vine,
leaves glaucous beneath.

June 8-13. Tinian Island is composed of a series of elevated terraces of reef limestone, representing at least 4 levels of elevation, separated by lines of cliffs. The surfaces of these terraces or benches are covered by soils varying in color and thickness from level to level. Some faulting has obviously taken place, resulting in slightly tilted terraces and several apparent levels that probably do not represent still-stands in the history of the elevation of the island. There are several large limestone sinkholes, so old as to be now merely small valleys with no outside drainage. One has a small lake. There is at least one small basalt outcrop, overlain by limestone, at Marpo or Carolina Ridge. This is so small that it probably has no influence on the vegetation.

The edges of the terraces above the sea cliffs and bluffs in many places have lost their soil, or

never had any, and are bare, rough, usually more or less dissected coral limestone. There are few beaches of any size on the island.

No trace ^{remains} of the ^{original} vegetation on the terraces, except where there are outcroppings of dissected limestone. The Japanese placed every square meter of land with enough soil into sugar, ~~and~~ napier grass and ~~the~~ sweet potatoes. Later the U.S. agencies farmed some of this land quite intensively. Now it has been abandoned for periods of upward of 7 1/2 months.

A vigorous weed vegetation has developed, so much so that it is hard to believe that such a short period has elapsed since the land was intensively cultivated.

The most obvious and generally distributed plants are *Paspalum conjugatum*, two sp. of *Lida*, *Malvastrum* ~~or~~ *coronandellianum*, *Crotalaria saltiana*, *Euphorbia hirta* (a very coarse and luxuriant form), *C. thymifolia* and another prostrate sp. (det. N. 192)

24734 *Jussiaea* *Lobelia octovalvis*
bottom of sink hole

✓ 35 *Plebeia marianensis* (A. DC.) Kuhn
coral limestone

36 coral limestone

✓ 37 *Pisonia grandis* R.Br.
coral limestone

✓ 38 *Mucuna gigantea*
coral limestone

end of
June 9 - Masalog Ridge,
Tinian I.
brink of eroded limestone cliff
bushy vegetation

✓ 39 *Jasminum marianum* K.
very common in bush (and
in all parts of island)

40 *Cassia*
common

✓ 41 *Cardiospermum halicacabum*
common

✓ 42 *Colubrina asiatica*
common

✓ 43 *Plebeia marianensis* (A. DC.) Kuhn
common

✓ 44 *Pisonia grandis* R.Br. (printed list)
common

herb 1 m. tall,
flowers yellow, 2-2.5
cm. across, petals yellow,
~~for drooping~~
obcordate, drooping very
easily.

— small tree or shrub,
2 m. tall, flowers white.
— slender small tree 5 m.
tall.

— tree 10 m. tall, fls.
— green, fragrant.
— vine climbing over trees,
flowers and fruit pendant.

scandent shrub,
flowers white, fruit
— green.

— ~~small~~ suffrutescent herb
up to 1 m. tall, fls. yellow,
leaves dull green.
— vine on ground and
climbing on shrubs, flowers
white.

— subscaudent shrub,
leaves glossy, fls. yellow.
— erect shrub 3 m. tall,
fruit strongly divergent.

— low shrub 1 m. tall, fls.
greenish white, aromatic. ^{lvs.}
(fruit from different bush) ^{dull}
above.

- 24745 *Phyllanthus marianus*
common in openings
- ✓ 46 *Capparis cordata* ^{caulifolia Lam.}
rare on edge of cliff
- ✓ 47 *Psychotria marianensis*
common
- ✓ 48 *Canthium odoratum* var. *tinianense*
common
- ✓ 49 *Fimbristylis cymosa* var.
- ✓ 50 *Bikkia*
common on brink of cliff
- ✓ 51 *Bikkia*
same
- ✓ 52 *Bikkia*
same
- ✓ 53 *Gossypium hirsutum* L.
common
- ✓ 54 *Canthium odoratum* var. *tinianense*
common
- ✓ 55 *Annona squamosa*
common
- ✓ 56 *Canthium odoratum* var. *tinianense*
common

shrub up to 0.6 m. tall.

leaves blue green, ^{fleshy}, low branched
sub-shrub, one withered
flower, buds with one
side gibbous.

shrub 1.5 m. tall, leaves
stiff, stipules not calyptrate,
flowers white, fruit red
when ripe.

shrub 1 m. tall, fls. white,
fruit becoming black
when ripe.

caespitose on ledges at
brink of cliff.

small shrub 0.6 m. tall,
fls. white. leaves fleshy
same

same

shrub 1-1.5 m. tall, fls.
cream, turning rose, fruit
from different plant.

shrub 1 m. tall
fruit immature

shrub 1 m. tall

shrub 1 m. tall, fruit
immature

June 9 Tinian City, Tinian
small patch of woods
on dissected coral on terrace

24757 *Psychotria marianensis*

✓ 58 *Ficus* ~~sp.~~ *sp.*

✓ 59 *Ficus tinctorius*

✓ 60 *Canthium*

61 *Callicarpa*

62

common

✓ 63 *Deerandia amaranthoides*
rare

✓ 64 *Cassytha filiformis* L.
common, parasitic
on various plants

✓ 65 *Passiflora foetida* var. *hispida* (DC.) Killip
common everywhere

✓ 66 *Polyalthia* ~~sp.~~ *sp.*
occasional

✓ 67 *Albizia lebbek*
common

- shrub 2 m. tall, fls.
- white, ripe fruit red.
- open tree 6 m. tall, fruit
immature, largest ones
pinkish with red dots.
banyan type
- with aerial roots,
- shrub 2 m. tall (others
as large as trees), fruit
- yellow to orange.
- erect shrub 2 m. tall,
- fruit green.
- low shrub, 1 m. long,
buds purple, ripe fruit
- turning purple.
- small tree, stigmas
- deep purple.
- vine, spikes pendent
- leafless, stems green,
flowers white; ripe
- fruit white, fleshy.
- vine, climbing over
shrubs; fruit orange,
bracts deciduous when
- fruit is ripe.
- tree 6 m. tall, leaves thin;
- fruit green.
- tree 8 m. tall.

June 9 same
Terrace just above ~~beach~~ ^{sea}
coral limestone about 5 m.
24768 *Jatropha gossypifolia*
abundant over much
of island.

- 69 *Cyperus*
common
✓ 70 *Pemphis acidula*
common very locally on
dissected limestone
✓ 71 *Hedyotis albidopunctata* (Merr.) Fock.
dissected coral limestone
✓ 72 *Fimbristylis cymosa* R.Br.
coral limestone
✓ 73 *Hedyotis foetidus* var. *marianensis*
coral limestone, common
✓ 74 *Scaevola frutescens* (Mill.) Kr.
common

June 9 Near Marps Wells, Tinian I.
around buildings in abandoned
cultivated ground.

- 75 *Boerhavia diffusa*
occasional
✓ 76 *Desmodium triflorum*
carpeting ground, widespread
on island.

shrub 1-1.5 m. tall,
lower leaves green, upper
deep purple, glandular
hairs purple, green tipped;
flowers brick red; fruit
green.

tuft, spikes brown

low bushes up to 1 m. tall,
leaves astringent when
chewed; flowers white.
leaves fleshy, paler
beneath; fls. white;
caespitose, leaves stiff.

plants ascending, ^{foetid when broken,} up
to 5 dm., leaves leathery,
buds white, few.

shrub 1-2 m. tall,
flowers white; fruit
white, fleshy when ripe.

prostrate from a heavy
root crown, stems up to 1 m.,
long, branched; leaves white
beneath, not fleshy.
prostrate; fls. purple.

June 9 - Mt. Lasso, Tinian I.
dissected limestone outcrop,
brushy tangled forest.

24777 *Morinda citrifolia* L.
common, widespread on island

✓ 78 *Melanolepis multiglandulosa*
June 10 common, widespread on island

79 *Lida*
common all over island
this plant sheltered.

80 *Lida*
common in abandoned fields
all over island (same as #24779)

81 *Lida acuta*
common in abandoned fields
all over island.

near
June 10 - Lake Hagoya, north
end of Tinian I.
strand vegetation on dissected
coral, mainly *Thespesia*, *Excoecaria*,
Pemphis, *Messerschmidia*, etc.
with *Ipomoea pes-caprae* on
sand and *Hedyotis* in rock
crevices and cavities

✓ 82 *Messerschmidia argentea* (L.) Johnston
common

83 *Excoecaria agallocha*
84

commonest tree on dissected
coral

shrub 2 m. tall, leaves
glossy, fls white.
- small tree 3 m. tall,
- fruiting spikes pendent.
bush 1 m. tall, leaves
dark green above, gray beneath.

rounded gray bush 1 m.
tall.

stems ascending,
branching and leaf arrange-
ment distichous, color
light green.

small tree 4 m. tall,
leaves fleshy, silvery green,
flowers white, fruit pale
green, fleshy.
- small lactiferous tree
4 m. tall.

- 24785 *Fimbristylis cymosa* R Br.
dissected coral
- ✓ 86 *Thespesia populnea*
common
- ✓ 87 *Digitaria* ^{*gaudichaudii*} *marianensis*
occasional in sandy pockets
- ✓ 88 *Hedyotis albido-punctata* (Merr.) Fosh.
rock ~~cave~~ crevices and pockets
- ✓ 89 *Ipomoea pes-caprae* (L.)
sandy places, common
- 90 *Vitex*
common, back from shore
- ✓ 91 *Ipomoea quamoclit* L.
cultivated, ^{climbing} on wall around
cemetery
- 92 *Eragrostis*
^{abandoned} weed in cultivated ground
- ✓ 93 *Delonix regia*
planted around settlements
and along roads
- ✓ 94 *Antigonon leptopus*
planted around buildings
- 95
weed around buildings
- ✓ 96 *Eragrostis amabilis* L.
weed everywhere
- 97 *Ipomoea*
weed around buildings

- caespitose, leaves not
stiff.
- small tree, flowers
pale yellow
- rather stiff tufts,
spikes appressed.
- recumbent to ascending,
leaves fleshy, pale beneath,
flowers white, tube ~~enlarged~~,
throat constricted, lobes
divergent.
- extensive vine, prostrate
on ground.
- shrub 2-3 m. tall,
fls. purplish.
- slender vine, flowers
scarlet.
- spreading clump
- flat-topped tree 6 m. tall,
fls. scarlet, lower petal
at first pink with red
spots, turning reddish.
- vine, flowers bright
rose pink.
- low, spreading
- prostrate, creeping on
ground, fls. purple, closing
at about 10:30 a.m.

- 24793 *Chloris inflata*
common along roadsides
- ✓ 99 *Dactyloctenium aegyptium* (L.) Beauv.
common everywhere
- 24700 *Euphorbia*
common everywhere
- ✓ 01 *Euphorbia hirta*
abundant everywhere
- ✓ 02 *Euphorbia prostrata*
abundant everywhere
- ✓ 03 *Phyllanthus ^{amaranthus Schum. & Th.} ~~visuus~~* ^{det. G. L. Webster}
abundant everywhere
- ✓ 04 *Boerhavia diffusa* ^{repens}
common
- ✓ 05 *Bambusa blumeana* Schult. f. ^{det. F. A. McClure}
planted
- ✓ 06 *Bambusa vulgaris* Schrad. ex Wendl. ^{det. F. A. McClure}
planted
- ✓ 07 *Alpinia speciosa*
planted
- ✓ 08 *Carica papaya*
common everywhere

Tufts

spreading, rooting
at nodes.
prostrate, plant green.

decumbent base, tips
ascending and arching,
unusually luxuriant.
prostrate, plant purple.
erect

prostrate, stems elongate,
fls. pink
clumps with culms crowded
rather closely, dark
green, up to 6 m. tall.
lower branches very
spiny, forming a tangle
sheaths from 4th & 5th nodes
clumps with culms
from 5 to 15 cm. apart,
up to 6 m. tall, dark green,
sheaths from 5th node,
culm sample 4th & 5th nodes.
(young & old culms)
large clump, 7 m. tall,
fls. ~~shells~~ white with
red tips, lip yellow
marked with red.
columnar soft stem
with crown of large
leaves, fls. white ♂.

~~248~~ June 10 Marpo Valley, near
Marpo Wells, Tinian Island
limestone slope, abandoned
orchard

24809 *Terminalia catappa* L.
near house

✓ 10 *Polypathia guamensis*
common second growth tree

✓ 11 *Canthium*
second growth in orchard

✓ 12 *Ipomoea peruviana* *ventricosa*
common climbing over trees

June 10 Mt. Lasso, Tinian Is.
limestone slope, abandoned
June 10 Camp Churo,
Tinian Is.

✓ 13 *Digitaria ciliaris*
abandoned camp site.
open ground

✓ 14 *Cosmos sulphureus*
open ground

✓ 15 *Argemone mexicana*
open ground, large colony

spreading tree 8 m. tall,
flowery white, fruit
thick, baccinate.

— small tree 4 m. tall,
leaves thin, dark green,
fruits green

— shrub 2 m. tall, fruits
dark green to black.

— great herbaceous vine
many meters long,
almost completely
covering trees.

of decumbent with
ascending ~~scapes~~
scapes, plant very
blue-glaucous, hairs
glistening—
ray flowers intense orange.

glaucous herb, flowers
bright yellow.
leaves white along vein

June 11 - Marpo Valley, Tinian I.
abandoned cultivated land

- 24316 *Ipomoea ~~sp.~~ ^{laevigata} (Sw.) Roth.*
planted about old house site

17

solid stand on terrace of
deep black soil

- 18 *Capparis cordata cordifolia* Lam.
common on ~~small~~ small
makatea outcrops

June 11 - Terrace above ocean
on s.e. side of ~~island~~ Tinian
Island grass-covered
terrace of deep black soil
with outcrops of dissected
coral or makatea, ~~to be not foot~~
weathered talus slopes at foot
of slopes with low brush

- 19 *Portulaca oleracea*
~~abundant~~ in disturbed places
and along road on terrace
- 20 *Vernonia cinerea*
common on terrace in
disturbed places

shrub 2 m. tall, stems
branched principally
at base, not inflated,
flowers lavender.
sterile, slightly
gray-green.

low suffrutescent
herb, somewhat
scandent, leaves
glaucous; flowers
wilted at 11 a.m. (said
to have been at 9:00 a.m.),
fleshy, white; buds with
strongly gibbous, ^{compressed}
lower sepal; immature
fruit with 5 strong ribs,
stipe recurved.

~~hibiscus~~
of *Thespesia*, *Myoporum*,
Chussea and several
other shrubs, with
Cassytha; *Bikbia* around
cliffs and limestone outcrops

fleshy, fls. yellow, about
1 cm. or less across.

erect, fls. purplish.

- 24821 *Miscanthus floridulus*,
dense small patch ~~on~~ ^{on} terrace.
- ✓ 22 *Rhynchosia calosperma* Warb.
occasional in grass on terrace
- ✓ 23 *Heteropogon contortus*
common locally on terrace
- ✓ 24 *Chrysopogon aciculatus*
occasional on terrace
- 25 *Cyperus*
occasional on terrace
- 26 *Cassia*
occasional on terrace
- 27 *Abutilon*
rare on lower slopes
- 28 *Allophyllus*
rare on lower slopes
- 29
common on slopes
- ✓ 30 *Polypodium scolopendrium*
very common on slopes and
cool outcrops
- 31
rare, tufts in crevices on face
of ~~the~~ limestone cliff
- ✓ 32 *Blechnum brownii* ~~var.~~ ^{f. puberulum}
common in small openings
on slope
- ✓ 33 *Achyranthes aspera*
occasional small patches
- ✓ 34 *Wedelia biflora* var. *complanata*
common around slopes and at
foot of cliffs

canes 2 m. tall, forming
dense brake.

prostrate vine,
mostly sterile.
stems weak, recumbent

small tufts

~~flower~~ low bush, 0.8 m.
tall, fls. yellow.
suffrutescent herb

scandent shrub,
fls. white
low bush 1 m. tall,
stiff, only seen in bud,
branches erect, ~~leaves~~ ^{leaves}

small tufts

prostrate herb with erect
branches, corolla pale purple,
drooping very easily.
stems spreading, elongate,
ascending at tips, staminal
tube deep crimson.

prostrate, tangled elongate
stems, fls. yellow.
leaves with slight frosty appearance

- 24835 *Bikkia*
common on and about foot of
limestone cliffs
- ✓ 36 *Heliotropium anomalum* H. & G.
rare on ledges of limestone
- ✓ 37 *Emilia sonchifolia*
common generally
- ✓ 38 *Bikkia*
common on and about foot of
limestone cliffs.
- 39
common on slopes
- ✓ 40 *Portulaca ~~quadrifida~~ australis*
rare on slopes
- ✓ 41 *Mysporum borinense* Koidz.
very common on slopes
- 42 *Zoysia ^{tenuifolia Trin.} matrella*
common on slopes, in places
forming a carpet.
- ✓ 43 *Lepturus repens*
common on slopes

- shrub 1-2 m. tall, leaves
thick, leathery, glossy,
flowers white, almost
odorless, margin of
corolla revolute in age.
leaves fleshy, flowers
white with yellow tube,
honey-like odor.
flowers purple.
- shrub 1-2 m. tall, leaves
thick, leathery, glossy;
flowers white, almost
odorless, margin of
corolla revolute in age
prostrate in exposed
places, a low shrub
in sheltered places. flowers
yellow.
- prostrate,
plant fleshy, leaves
somewhat compressed.
prostrate in exposed places,
low shrub when sheltered,
flower white with honey-
like odor; fruit deep
magenta-purple when
ripe, not angled.
not pungent.
- small ~~tufts~~ tufts.

- ✓ 24344 *Hedyotis albidopunctata* (Merr.) Fock.
common on slopes

- ✓ 45 *Oxalis corniculata* var. *repens*
common on open slopes

June 11 Marpo Valley, Tinian I.
abandoned cultivated land.

- ✓ 46 *Cassia occidentalis*
one of commonest plants

- ✓ 47 *Eleusine indica* L.
Polanisia isoxandra
very abundant

- 48 *Cyanotus*
common

- ✓ 49 *Physalis lanceifolia* Nees
common

June 11 west side of Island
"Palm Beach" Tinian I.
cliffs of limestone, covered with
small trees, at bottom talus
covered by *Darringtonia asiatica*,
moist.

- ✓ 50 *Zacca leontopodioides* L.
small colony in shade on talus
- ✓ 51 *Dioscorea bulbifera* L.
rare on talus in shade

Tinian

prostrate, stems red.
leaves fleshy; flowers
white, ^{lobes} strongly divergent,
narrowly oblong, throat
closed with hair; immature
fruit fleshy. corolla tube
~~dilated~~ at middle.
prostrate, flowers yellow.

herb 1.5 m. tall, flowers
yellow. Japanese were
said to have used seeds
as a coffee substitute.
herb with rank odor,
yellow flowers.
flowers lavender,
perianth tube long, petals
unequal, deliquescent.
herb, much branched, 0.7 m.
tall, flowers pale yellow

Top covered by tall brush,
leading to *Scaevola* out on
point, then to open *Zoisaia*
flat, then to bare dissected
limestone.

sterile

sterile

✓ 24852 *Barringtonia asiatica*
talus at base of cliffs, dominant

53 shade on talus at foot of cliffs

54 *Asplenium*
on cliffs

✓ 55 *Cordia subcordata*
common on cliffs

✓ 56 *Digitaria* ^{*gaudichaudii*} ~~*marianensis*~~
rare on cliffs

✓ 57 *Premna obtusifolia* A. Br. (pointed lvs.)
common in brush at top of cliff

✓ 58 *Tarenna samburina*
common in brush at top of cliff

same open coral flat at top of cliff on point.

✓ 59 *Scaevola frutescens* (Mill.) Kr.
common, especially away from point

60 *Callicarpa*
common in edge of brush

✓ 61 *Boerhaavia diffusa* ~~*repens*~~
~~occasional~~ on grassy flat

✓ 62 *Heliotropium* ~~*argenteum*~~ ^{*anomalum*}
common on bare dissected coral

Tinian

large tree 12 m. tall,
flowers white, stamens
pink distally.
fronds erect.

trees 5 m. tall, (flowers on
young sprout), flowers
brilliant deep orange.
fruit green.
~~large~~ tufts

✓ bush 2 m. tall, fls.
pale green, aromatic.
leaves only slightly glossy.
shrub 3 m. tall, fls.
white, fading yellowish;
fruit immature.

low rounded bush 1 m. tall
(getting lower toward point)
fls. white; fruit white, fleshy.
low shrub 1 m. tall,
flowers purple, ripe
fruit deep purple.
prostrate, reddish.
fls. pink, leaves thin.
prostrate, leaves fleshy,
fls. white with yellow center,
honey odor, (only one kind - deeply lobed,
noted)

✓ 24963 *Hedyotis albida* - punctata
open dissected coral

64 *Lida*
open dissected coral

✓ 65 *Evolvulus*
open dissected coral

✓ 66 *Zoysia matrella* ^{*tennifolia* Trin.}
dominant on open coral flat

✓ 67 *Jasminum marianum* DC.
in bush at top of cliff

✓ 68 *Asclepias curassavica*
abandoned cultivated land

✓ 69 *Pachyrhizus erosus*
in bush at top of cliff, ^{local}

✓ 70 *Psidium guajava*
in bush at top of cliff,
only occasional on island

✓ 71 *Psychotria marianensis*
occasional in bush at top
of cliff

June 11 Mt. Lasso, Tinian I.
forest on limestone bluffs
surrounded by abandoned
cultivated land.

✓ 72 *Cerbera ~~officinalis~~ ^{*appositifolia*}*
in pasture, almost
strangled by *Ficus*

June 12 same
73 *Ficus*
edge of cultivated ground

prostrate, fls. white,
lobes narrow.

prostrate

prostrate, fls. blue

forming a dense carpet.

scandent shrub,

fruit shining, black.

erect herb, corolla red,

crown orange
vine climbing through
bush, several m. long.

shrub 1.5 m. tall,
fruit immature.

shrub 2 m. tall, leaves
glossy, esp. on young
growth, flowers white,
ripe fruit red.

tree 5 m. tall, flowers
white, fruit green,
terete.

large tree, fruit green
when ripe

- 24874 *Heliotropium indicum* L.
weed around house
- ✓ 75 *Cyperus byllinga*
weed around house
- ✓ 76 *Ricinus communis*
cult. as ornamental
- ✓ 77 *Cynodon dactylon* (L.)
around house, well
scattered over island
- ✓ 78 *Catharanthus roseus* (L.) G. Don
in garden, but escaped
and well distributed
over island.
- ✓ 79 *Echinochloa colonum*
weed near house
- ✓ 80 *Paspalum conjugatum*
~~sp. sp.~~ old cultivated
ground, most abundant
plant on island.
- ✓ 81 *Leucaena ~~glauca~~* ^{*leucocephala*}
very common in abandoned
land.
- ✓ 82 *Urena lobata* L.
occasional in abandoned land
- 83 *Sida cordifolia*?
rare, in eroded place
- ✓ 84 *Vigna marina*
eroded land, widespread on island
- ✓ 85 *Crotalaria saltiana* ^{*malhada* *macrantha* Desv.}
very common in abandoned land
- 86 *Strongylodon*
edge of cliff

flowers white with
yellow center.
heads white.

shrub 2.5 m. tall.

forming dense turf.

erect suffrutescent
herb 0.5 m. tall.

flowers magenta
(other plants white)
spreading from root
crown.

rooting at nodes,
running, culms
erect.

shrub 1-2 m. tall,
fls. whitish, anthers
salmon-buff.

erect, plant reddish green.

prostrate sub-shrub.
extensive.

prostrate, peduncles erect,
flowers yellow, keel straight.

herb 2 m. tall, flowers
yellow with brown
markings on standard.

extensive vine, racemes
pendent, standard
deep maroon, wings & keel
lighter, almost crimson.

- 24
✓ 887 *Polyscias grandifolia* Vahl.
limestone on top of cliff,
shaded.
- 88 *Polyscias*
planted as ornamental
- ✓ 89 *Casuarina equisetifolia*
planted extensively for windbreaks
- 90 *Polyscias*
planted as ornamental
- ✓ 91 *Codiaeum variegatum*
planted as ornamental
- ✓ 92 *Acacia confusa*
extensively planted for windbreaks
- ✓ 93 *Calophyllum ~~macleodii~~ ^{inophyllum}*
planted as ornamental
- ✓ 94 *Nicotiana glauca*
persisting from cultivation
- ✓ 95 *Zephyranthes rosea*
persisting from cultivation
- ✓ 96 *Cerbera dilatata*
top of cliff
- ✓ 97 *Abrus precatorius*
tangled in the vegetation
at top of cliff
- ✓ 98 *Pithecellobium dulce*
common everywhere

June 12 Camp Churo, near
center of Tinian I.

- 99 *Ficus*
around buildings

- shrub 2 m. tall,
leaves glossy, plant
with slight celery odor.
- erect shrub 2 m. tall, fruit
blue-gray, rubbing to
black.
- tree 8 m. tall
- erect shrub, leaves
stiff, crinkled.
- erect shrub, leaves
spotted with white.
- small rounded tree
- tree 8 m. tall, flowers
white, fragrant.
- herb 1 m. tall, flowers
pink, herbage sticky.
- dense cushions, flowers
bright rose pink.
- tree 5 m. tall, flowers
white, pinkish on tube.
- vine climbing in trees,
seeds red and black.
- tree, branches ascending,
sterile.

banyan type but trunk
not very well developed.
tree 8 m. tall, ripe fruit
purple.

June 12 - ^{yellow} Officers Beach, e. side Tinian I.
sandy beach surrounded by coral limestone bluffs sand covered by *Ipomoea pes-caprae*, *Triumfetta*, etc. bluffs with *Lempsis* with a few other shrubs
+ *Hedyotis*

24900 *Malvastrum cormandelianum*
roadside, one of principal weeds in abandoned fields.

✓ 01 *Amaranthus viridis*
roadside weed, common
✓ 02 *Cleusine indica*
one of commonest weeds on island, roadside

✓ 03 *Hibiscus tiliaceus* L.
in forest back of cliffs, common

✓ 04 *Cenchrus echinatus*
common roadside weed, found everywhere

05 *Ipomoea alba* L.
very abundant in forest behind bluffs

✓ 06 *Thuarea involuta*
on sand back of beach

✓ 07 *Terminalia* ~~randoliana~~
on limestone bluffs, exposed

✓ 08 *Hedyotis albidopunctata* (Merr.) Fock.
limestone bluffs

scraggly woods ^{back} ~~at~~
bluffs covered by great growth of *Ipomoea alba* and *Passiflora foetida*

flowers yellow

prostrate

spreading tufts.

small tree 4 m. tall, leaves very dark above, white beneath.
spreading tufts.

great vine almost smothering trees.

prostrate, forming a loose mat.
shrub 1.5 m. tall, fruit very young
prostrate, stems red, flowers white. leaves fleshy

- 24909 ✓ *Sporobolus pes-caprae*
sandy beach
- ✓ 10 *Triumfetta procumbens*
sandy beach
- ✓ 11 *Wedelia biflora* var. *canescens*
common on sandy beach
- 12 *Ficus*
lower face of bluff
- ✓ 13 *Heliotropium anomalum* H. & A.
sand at foot of bluffs
not common. (with #23914)
- ✓ 14 *Heliotropium anomalum* H. & A.
sand at foot of bluffs,
not common (with #23913)
- 15
common along trail in brush
- ✓ 16 *Scaevola frutescens* (Mill.) Kr. var.?
common on bluffs

June 13 North Air Field,
Tinian I.
coral flat becoming
very rough toward the sea
covered by large patches
of *Verbesina*, *Pemphis*,
Heliotropium anomalum,

- extensive prostrate vine,
rooting in sand, flowers
bright purple.
- extensive creeping
prostrate branched vine.
prostrate, extensive,
flowers on ascending
branches, yellow.
leaves fleshy.
- shrub 1.5 m. tall.
fruit immature.
- prostrate to ascending,
lvs. fleshy; flowers yellow
with white lobes,
slight honey odor.
- prostrate to ascending,
leaves fleshy; flowers
white with yellow center,
strong honey odor.
- stem prostrate, branches
ascending, corollas
lavender, falling very quickly.
small shrub (others larger)
flowers with central
third of lobe purple,
fruit immature.

etc., with *Hedyotis albispunctata*
between. *Myoporum*
here and there

- 24917 ✓ *Heliotropium anomalum* H. & A.
rough coral, forming almost
pure stands of many
square meters each.
- ✓ 18 *Capparis cordifolia*
on raised blocks on rough
coral flat
- ✓ 19 *Hedyotis albidopunctata*
in ~~the~~ small cavities in
rough coral
- ✓ 20 *Portulaca oleracea*
common along disturbed
roadside
- ✓ 21 *Portulaca oleracea?*
top of coral bluff, back of
flat south-east of air field
- ✓ 22 *Freziera insularis* (L.) HBK.
roadside west of air field

- plant fleshy, prostrate
to ascending, flowers
white with strong yellow
center, honey-scented, scarcely
or not dimorphic.
- subscandent shrub,
leaves ~~so~~ fleshy, somewhat
glaucous, minutely
viscid glandular but
not pubescent; at 8:30 a.m.
some flowers wilted,
those in shade still open,
obviously a night-flowering
species, flowers cream-
white, fragrant.
- prostrate to ascending,
stems red to green,
leaves fleshy; flowers
white, lobes patent,
elliptic-ovate.
- plant fleshy; flowers
yellow, 1 cm. across,
stamens about 20,
fls. closing ~~at about~~ ^{at} 11 a.m.
- tree 9 m. tall, lactiferous;
leaves thinly arachnoid
sericeous beneath.

June 13 "Broadway", s.w. of
Yellow Beach

abandoned cultivated land

24923

Clitoria ternatea

covering solid patches
in field near road.

✓ 24 *Annona muricata*
roadside tree

✓ 25 *Antocarpus altalis*
tree around old house-site

26 *Cucurbita*
persisting after cultivation

✓ 27 *Morus*
around old house site

✓ 28 *Luffa acutangula*
persisting after cultivation

✓ 29 *Acalypha wilkesiana*
roadside ornamental

✓ 30 *Cajanus cajan*
persisting after cultivation

~~31 *Fig* near foot of cliff~~

31

ledge near foot of
limestone cliff

✓ 32 *Pipturus argenteus*
foot of limestone cliff
common in forest

vine matting ground,
flowers deep blue,
white toward base
of petals.

— tree 5 m. tall, fruit
large, prickly.

— tree 3 m. tall, lactiferous.

prostrate vine, leaves
flecked with gray,
flowers orange.

— tree 5 m. tall

prostrate vine, inflo-
rescence erect, flowers

— bright ~~yellow~~ yellow.
shrub 2 m. tall, leaves
various shades of
red and bronze-red;
style, red.

— bush 2 m. tall

June 13 "Broadway" n.e. of Yellow Beach,
easternmost ~~hump~~ hump of 2nd line of cliffs
soft stemmed, thick stemmed
shrub 1.5 m. tall, leaves
— young, buds green.

— small tree 4 m. tall,
at

June 13 - Mt. Lasso, Tinian I.
around old shrine grounds,
now abandoned

24933 *Canna*

planted ornamental

✓ 34 *Lanceveria trifasciata*

planted ornamental

✓ 35 *Clerodendron Thompsonae*

planted ornamental

June 13 Camp Churo, Tinian I.
~~at~~ *Coccoloba* *lachryma-jobi*
roadside weed

✓ 36 *Leiba pentandra*
roadside tree

June 13 Camp Churo, Tinian I.

~~at~~ abandoned cultivated region

✓ 37 *Coccoloba lachryma-jobi*
roadside weed

✓ 38 *Bougainvillea glabra spectabilis*
planted as ornamental

✓ 39 *Ipomoea bigelovii*
persisting after cultivation

herb 1.5 m. tall, flowers
brilliant scarlet. fruit
maroon, tuberculate.
leaves erect, gray and
green mottled, the
form with white
edges growing nearby.
berries orange red
vine, calyx white,
corolla deep blood-red

fruit at first lead black,
then pearl gray.

tree 8 m. tall, ~~the~~
branches perpendicular
to tall straight trunk,
widely spaced; fruit pendent.

fruit lead black when
young, then pearl gray.

scandent shrub, bracts
magenta, flowers white.
erect 1.5 - 2 m. tall.

Euphorbia heterophylla (not so common), *Asclepias curassavica* (not so common), *Eleusine indica*, *Portulaca oleracea*, *Cenchrus echinatus*, *Amaranthus spinosa*, *A. sp.* (less common), *Cyperus stuppeus*, *Cassia occidentalis*, *Vernonia cinerea* (less common), *Phyllanthus niruri*, *Dactyloctenium aegyptium*, *Eragrostis amabilis* (less common). More local are *Ipomoea indica* (?), *Ipomoea sp.* (24797), *Cynodon dactylon*, *Clitoria ternatea*, *Tricachne insularis* (rare), *Cehinochloa colonum*, *Catharanthus roseus*, *Cyperus byllinga*, *Urena lobata*, *Trumfetta semitriloba* (Hosaka coll.), *Physalis sp.*, *Polanisia icocandra* (abundant in Marpo area, important host for insect pests), *Oxalis*, *Chrysopsis aciculatus*, *Argemone mexicana*, *Chloris inflata*, *Eragrostis sp.* (rare), *Amaranthus* (24730), *Aeschynomene indica*.

Where the land has been abandoned longer bushy patches are appearing, with *Jatropha gossypifolia*, *Leucaena glauca*, *Psidium guajava*, *Indigofera suffruticosa*, *Passiflora foetida*, *Carica papaya*, *Sida sp.* (24779, 80), *Morinda citrifolia*, *Annona squamata*. These places are usually smothered by *Passiflora foetida* and sometimes *Ipomoea* (24812).

Old house sites may be detected by small groups of *Artocarpus*, *Musa*, *Ficus*.

Terminalia catappa, *Annona muricata*, *Morus* (rare), etc. *Nicotiana tabacum*.

Vigna marina and *Ipomoea pes-caprae* form occasional patches inland especially where the top-soil has been removed by bull-dozers or erosion. They are, of course, common on the coast.

The Japanese, after they had completely destroyed the natural forest vegetation, found the wind detrimental to their agricultural activities on the bare plateaus that remained. To correct this extensive wind-beater of *Casuarina equisetifolia* and *Acacia confusa* were planted. These remain. In the broad strips of *Acacia* there is absolutely no undergrowth, not even ferns, grasses or mosses. I did not examine a similar planting of *Casuarina*. *Ceciba pentandra* was planted along some of the roads.

In the fields, persisting from cultivation are great quantities of *Saccharum* and *Pennisetum purpureum*. Little traces of *Zea*, *Raphanus*, *Lactuca*, ~~Chinese~~ *Brassica* (Chinese Cabbage), *Cucumis sativa*, *C. melo*, *Cajanus cajan*, *Sorghum vulgare* remain, other than a few scattered plants. *Cucurbita pepo*, *Lagenaria ciceraria*, *Luffa acutangula*, ^{Mariot} *Cosmos sulphurea* (?), ^{esculentus}

gossypium?

Catharanthus rosea ~~are~~ persist more abundantly. The U.S.C. papaya patch is still in good shape and produces quantities of fine "solo" fruit. Also papayas are spontaneous all over the island. A citrus grove of sour ranges and limes planted by the Japanese lies in the north side of Marpo Valley, but has now grown up somewhat to other trees.

Common plants cultivated around camps, etc. are *Pseuderanthemum eldorado*, *P. atropurpureum*, *Graptophyllum pictum*, *Catharanthus*

roseus, *Delonix regia*, *Cassia glauca*, *Bauhinia monandra*, *Acalypha wilkesiana*, *Codiaeum vulgare*, *Polyscias fruticosa*, ~~P.~~ of several fancy forms, *P. guilfoylei*, *Canna hybrida*, *Annona muricata*, *Artocarpus altilis*, *Terminalia catappa*, *Calophyllum inophyllum*, *Zephyranthes rosea*, *Ocotea thompsonae*, *Picramnia communis*, *Ipomoea erecta*, *Alpinia speciosa* (rare), 2 sp. of *Bamboo* (rare), *Antigonon leptopus* (rare), *Ipomoea quamoclit*, *Annona muricata*, *Zizania matrella*, etc. Most of these were doubtless brought by the Japanese and some of the very specimens now cultivated were planted by them, as their size attests. *Cruciferae* are rare.

The ~~set~~ different levels are separated by escarpments a row of limestone bluffs which are covered by a thick forest excepting on some too abrupt places. Where there is no forest a sparse shrubby growth of *Bilbia*, ~~Psychotria~~ *Psychotria marianensis* etc. is found. This is usually

not far from the ocean. The forest is of *Ochrosia* sp., *Cerbera* sp., *Psychotria mariannensis*, *Cynometra* sp., *Melanolepis multiglandulosa*, *Pisonia grandis*, *Pipturus argenteus*, *Guamnia* sp., *Saffordii*, *Erythrina* sp. about 2 or 3 sp. of *Ficus*, *Aglaia* (Hosaka coll.), *Morinda citrifolia*, ~~*Passiflora*~~ ~~*with Passiflora*~~ *Premna*, *Colubrina asiatica*, a variable population of *Canthium*, *Polypodium* sp. (24837 var), 2 rare unident. sp. (24921, 24931), tangled with ~~*Clatenda*~~ *Jasminum*, *Ipomoea* (24812), *Alnus precatioris*, *Mucuna gigantea*, *Strongylocodon*, *Passiflora foetida*, etc. There is little or no under growth in these forests except where disturbance has taken place.

A somewhat similar forest appears on outcroppings of dissected coral on the flat lands.

Ficus seems to be more common here. *Albizia* sp. is common, possibly naturalized.

The original vegetation of the terraces may have been similar to this, but probably richer in species.

On the terraces toward the brows of these cliffs, and especially toward the sea cliffs the soil thins out to nothing. Before it has thinned to nothing a somewhat similar forest occurs, but with the addition of *Tarennia* sp., *Wikstroemia* sp. and with *Premna* more common. It is gradually reduced to brush where the soil becomes too thin. The brush has many of the same species as the forest *Premna*, *Ochrosia*, *Eugenia*, *Canthium*, *Psychotria*, *Colubrina*, *Annona*, *Callicarpa*, etc. Added are *Pilea* *mariannensis*, *Phyllanthus* sp., *Capparis cordata*, *Cassia* sp., and, at low altitudes, *Scaevola frutescens* and *Pemphis acidula*, unident. bush (24829), *Myoporum*, etc. *Polypodium scolopendrium*.

On the high cliffs on the west side a better development of forest exists, especially on the talus at the base, where *Barringtonia asiatica* is dominant, with some *Pandanus*. Here the soil is moist and ferns, *Tacca*, *Pilea*, etc. grow in the shade.

Clatenda sp.

Canmytha

Thespesia
Hibiscus

Pandanus
Eugenia
Palumbus

Cordia
subcordata

Annona
squamata

Callicarpa
sp.

Hibiscus
villosus

Clatenda
Jasminum

Canmytha

On the cliffs, *Cordia subcordata* is very important. *Asplenium Polypodium scoparium*, *Hedyotis foetidus* var. *marianensis*, and *Digitaria marianensis*, are found ~~on~~ and *Phyllanthus* sp. are found commonly.

On windswept headlands ~~at~~ an extreme strand vegetation ~~is~~ is found.

This is on coral rock usually quite dissected and with little soil. Inward there is a belt of *Scaevola*, *Capparis*, *Callicarpa*, etc. becoming lower and giving place to abundant *Myoporum*, *Heliotropium argenteum*, *Zoysia matrella* (common, forming carpets), *Vicia*, *Sida* sp. (24367), *Hedyotis albido-punctata*, *Evolvulus* sp. The relative abundance and distribution of these varie from place to place.

~~On the sea~~ At low altitudes *Pemphis aurula* enters the picture, often as a dominant over large plots, also *Terminalia catappa*, *Wedelia biflora*, *Excoecaria* (?), *Messerschmidia argentea*, *Thespesia populnea*, etc.

On a terrace ~~of~~ on the s.e. side there is deep black soil almost completely covered by dense

growth of a grass that may be *Sporobolus virginicus* (24317) with a dense patch of a reed (24321), patches of *Heteropogon contortus*, *Achyranthes*, occasional *Vernonia cinerea*, *Portulaca* ~~lutea~~ *oleracea*, *Chrysopogon*, *Cyperus* 2 sp., ~~etc.~~ etc.

Above on weathered talus slopes this gives way to the brush described on p. 197 with *Myoporum*, ^{high} *Polypodium*, *Eugenia*, *Canthium* and 24327 important, and added 24339.

Wedelia, *Abutilon*, *Allophylus*, *Achyranthes*, etc.

toward the sea cliffs at the n.e. end, very prostrate *Myoporum* 24339, *Hed. albidif.*, *Zoysia*, *Lepturus repens* and *Dialis corniculata* dominate the ~~sea~~ vegetation. Toward the rest of the cliffs elsewhere are occasional outcroppings of dissected coral with *Capparis* principally. The deep soil of the terrace was cultivated in sweet potatoes by the Japanese.

On the few beaches *Ipomoea pes-caprae*, *Wedelia biflora*, *Vigna marina*, *Triumfetta* *swampens*, *Digitaria marianensis*

Messerschmidia argentea,
Scaevola frutescens, etc.
 are important.

The vegetation of the island may be briefly summarized as a strand vegetation, becoming more extreme in exposed places near the ocean and becoming more luxuriant and mesophytic inland and in sheltered places. It has been greatly altered by man, especially on flat, tillable ground.

June 9 - Mt. Lasso, Tinian I.
 around buildings

42490

on rotting wood

41

on rotting wood