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- Notes on plants collected by Herbert H. Smith in Columbia, S.A.
- 1 (Same as No. 2?) A shrub 6 ft. Observed only near Cacagualito, 1500 ft. Campo, edge of forest, collected Aug. 9 Same as No 2.
 - 2 Shrub 6-8 ft. Petals pink; in damp thickets, about 1500 ft. Flowers May-July. The flowering specimen is from near the Calavasa plantation. May 23; the fruit from the same plant, Aug.) Full set. *Rare.*
 - 3 Specimen collected near Cacagualito 1500 ft. Nov. 16. The plant blossoms freely Nov.-Dec. Petals pale pinkish. No 1 is the same, not worth separating even as a variety. the leaves vary greatly in size, form and amount of pubescence. Thus far I have observed this species only near Cacagualito and eastward to Calavasa etc. It grows along the borders of forest.
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 - 3 Shrub or small tree, 15-20 ft. generally near streams. Flowers July-Aug. Petals white. (A specimen is from Cacagualito, 1500 ft. Aug. 9. Full set, fair.
 - 4 Clidemia cyanocarpa Benth. Shrub, 2-3 ft. Common locally in damp forest, 1500-2500 ft. Flowers July-Aug. white. (Specimens are from Cacagualito, 1500 ft. Aug. 9)
18 specimens; some scant or not in good flower.
 - 5 A shrub or small tree, 6-10 ft. Pretty common locally, 1500-2500 ft. damp hillsides, generally on the edge of forest; occasionally seen as low as 1500 ft. in forest valleys near streams. Flowers June-Aug. Petals pink (specimen is from near Cacagualito 1500 ft., June 21 specimens; scant and some poor.
 - 6 Conostegia jalapensis D. Don. A shrub or small tree, 5-15 ft. Common locally in campo thickets, damp hillsides 1500-3000 ft. Flowers May-June, but most freely, June-Sept. (specimen is from Cacagualito Aug. 7) ^{1500 ft.} The petals Full set, but about 10 not in full flower.
 - 7 Shrub 3-5 ft. Rare in thickets, 1500-2000 ft. Observed only near Cacagualito and at Campo Alegre. Flowers Aug-Nov. (Specimen is from Cacagualito Aug. 7) The petals are small. Full set; only 15 in flower.
 - 8 Clidemia elegans D. Don. A low shrub 2 ft. Only one stunted specimen seen near Cacagualito 1500 ft. Campo thickets on the edge of forest. Aug. 9. Petals white. No specimens except poor ones for N.Y. and Carnegie.
 - 9 Shrub, 4 ft. Forest hillside near the Mamacasaca plantation. Found in fruit Aug. 9; only one seen. No dissecting material.
 - 9 (fruit already sent in) Specimen from low, damp forest near the coast at Don Diego. May 16. The species is moderately common in this vicinity along the bases of rocky hills and in ravines. It grows to about 6 ft. Flowers white. (Melastomaceae.)
 - 10 A tree 15-20 ft. Damp forest below 1500 ft. in the region adjoining the northern coast, 20-50 miles East of Santa Marta. The flowering specimen was collected near Don Diego at the foot of hills hardly above sea-level. May 6; the fruit is from Cacagualito, 1500 ft. Aug. 9. No specimens except for N.Y. and Carnegie.
 - 11 Miconia spicellata Bonp. (Already sent in). Specimens collected 6 miles Northeast of Masinga, 2000 ft. March 28. I found the species blossoming freely at this date. It is locally common, ranging from 600 to 2500 ft. generally along the borders of forest. Petals. white.

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ing freely at this date. It is locally common, ranging from 600 to 2500 ft. generally along the borders of forest. Petals white.

- 11 A shrub or tree, 10-15 ft. Common along the edge of hillside forest at Cacagualito, 1500 ft. Blossoms in May. Full set, partly with fruit.
- 12 Tree, to 20 ft. Common locally on damp hillsides, 1000-2000 ft. Flowers in May. (Flowering specimen is from Cacagualito, 1500 ft., May; th fruit from the same locality Aug.) Full set, but nearly all in bud. Mostly above Agua Dulce.
- 13 Tree, 40-50 ft. Damp hillsides forest near Cacagualito, 1500-2000 ft. Flowers May 22. Fruit Aug. 7. The tree appears to be pretty common in this locality. Full set, good.
- 14 Tree 20-50 or 60 ft. Common in dry forest and campo thickets below 1500 ft. Flowers July-Sept. Flowers vary in color from purple to lilac. (Specimens are from Bonda, July and Sept.) Full set, somewhat injured by pests.
- 15 Gliricidia maculata H.B. A shrub or tree, 15-25 ft. Cultivated for hedge and is naturalized sparingly in clearings and waste places not far from sea-level. Flowers freely in December. Full set, rather scant flowers but will do with more and better leaves. No fruit.
- 16 Tree 30-60 ft. Common in dry forest below 2000 ft. Flowers Oct. to November and the fruits persist until the following July or Aug. The leaves are deciduous, beginning to fall off about the time of flowering. (specimens from Bonda). Full set; good. Flowering trees observed in Feb., March and April. (Note on label of dissecting material.)
- 16 Specimens to work in with the numbered set.
- 16 Specimens to replace the numbered set, which is not very good.
- 17 Tree 40-60 ft. Common in dry forest below 1500 ft. Flowers July-Sept. (Specimens are from near Bonda, July.) 26 specimens, scant, not very common.
Dissecting Material. The tree is not very common as stated in my note, though not particularly rare.
- 18 Vouacapoua Americana Aubl. From a tree 70 ft. height, damp forest by stream near Masinga Vieja, 800 ft. Nov. 18.
- 18 A large forest tree. Growing to 80 ft. or more, occasionally below 2500 ft. especially near streams. Flowers rich, deep rosy. This specimen is from a ravine near Bonda, Aug. 9.
- 18 (already sent in) Variety, collected near Bonda, 200 ft. Feb. Trees of this species may be seen in flower during every month of the year; perhaps it blooms most freely Dec.-Feb.
- 19 Tree 50 ft. Common in dry forest below 1000 ft. Flowers July-Sept. (Specimen is from near Bonda, July 20). 26 specimens. No fruit.
- 19 Specimens to add to the numbered sheets.
- 20 Tree 20-40 ft. Occasional in dry forest below 500 ft. Flowers June -Aug. (Specimens are from near Bonda, July and Aug.) Full set, fine, with fruits.

- 20 Dissecting material. The species is common in the dry forest region below 2000 ft. and especially near sea-level. Occasionally it is a tree, to 30 ft. or more, but oftener shrubby, 8-10 ft. high. Flowers freely Feb.-April, and occasionally during other months. Leaves ~~decid~~ deciduous in Feb. but are quickly renewed.
- 21 A vine with tendrils, 20-40 ft. Common in forest and thickets below 3000 ft. Flowers at intervals from July to December, very freely Oct-Nov. (Specimens are from near Bonda) 26 sp. poor
- 22 Tree, 20-40 ft. Occasional in dry forest 2-5 miles South of Bonda, July 28. Not observed elsewhere. No specimens except poor ones for N.Y. and Carnegie
- 22, Specimens collected in dry forest 3 miles north of Bonda, Oct. 23. I found several trees in flower at this date. The species, as far as I know, is confined to a limited area a few miles north of Bonda, 100-350 ft. above sea-level; it does not grow at Bonda, though the forest there is of a similar character and the elevation, soil etc. the same. Flowers dark crimson/purple.
- 23 Tree, 15-40 ft. Occasional in dry forest below 1000 ft. Flowers in Sept. and the fruits persist until near the following flowering season. (Flowering specimens is from near Mamatoca Sept. 24; the fruit from Bonda, July. Full set, 20 with fruit. Blooms freely in March and April.
- 23 Dissecting Material. The tree flowers freely Feb-Apr. and the leaves are deciduous at that time. The species rarely grows to more than 25 ft.
- 24 Inga lateriflora lateriflora Miq. A river-shore tree, 40-50 ft. Common below 1000 ft. flowering at intervals from July to Jan. very freely in December; stamens white. (Specimens are from Bonda, July and Nov. 13 specimens.
- 25 Pithecolobium Vahlianum Benth. A tree, 30-40 ft. Common locally in damp forest at Cacagualito, Onaca etc. 1500-3000 ft. (Specimens are from Cacagualito, 1500 ft. Aug. 9 The flowers are on the trunk. 26 specimens; scant, and most of the leaves incomplete.
- 26 Pithecolobium dulce Benth. 20 ft. forest near stream. Bonda (200 ft.) Aug. 5. Stamens nearly white. 25 specimens
(?)
- 26 Dissecting material and poor fruit. This form is rare, but I have seen several plants of it; the stamens are always whitish with a tinge of pink, not changing in color, and never rosy as in the allied forms. In Nos. 307, 308, etc. the color varies in depth, but is never very pale.
- 26 Specimens to add to the numbered sheets.
- 27 Inga ingoides Willd. A tree 40 ft. or more. Observed only in forest, near the top of the Cuaco Mountain, 4500 ft. Sept. 27
(No specimens except for N.Y. and Carnegie; Fruit for N.Y.)
- 27 Agua Dulce July 30. No specimens except for N.Y. and Carnegie.
- 27 (already sent in) Specimen with fruit. Minca, 2000 ft. June 25 The tree is quite common in this locality on damp hillsides near streams. The fruit grows to 15 inches and has an edible pulp.
Pithecolobium latifolium Benth.
- 28 A spreading thickly-leaved tree, 15 ft. Common on hot, dry plains, 3-5 miles South-Guaira of Guaira; collected Nov. 8. Stamens blush or nearly white. Grows also on similar plains at Guaira, where it

was found in bloom Sept. 10 ;somewhat rare. (26 specimens;no fruit.

28a Pithecolobium diversifoliumBenth. (No label)

29 Pithecolobium dulceA small tree, near Santa Marta,Sept. 14.

(no specimens)

30 Local,especially in ravines, dry forest near Bonda (150-300 ft.)A high shrub or tree 15-20 ft. with long,slender branches. The branches and stem are spiny.(Specimen is from Bonda Aug.20)6 specimens, not good.)

30 Dissecting Material.This species varies in habit.Commonly it is a shrub with long,slender branches, which may be sub-scandent to 30 ft. or more. In a hot and dry situation it is a rather compact shrub or small tree; and there are intermediate forms. The larger branches are more or less spiny.The plant flowers freely April to May, and again about Aug.-Sept. No. 52 is the compact form;as it cannot be definitely distinguished the number must be suppressed. Flowers and stamens white.

31 Cassia Tora L.Collected with No.71, near Bonda.Legume will be sent later.

I do not know if this form is common as I had confounded it with No. 71. (No specimens except for N.Y. and Carnegie. No fruit.

32. A shrub or tree,5-20 ft. Very common in dry forest below 1000 ft. blossoming May-Dec. but most freely about June. The specimen is from Bonda,June. 26 specimens. A few fruits.

32 Duplicate.

33 A shrub with long,sometimes semiscandent branches,5-10 ft. Common on hot,dry lands near the coast, especially at Santa Marta. Flowers July -Oct. light purplish.(Specimens from Santa Marta were labeled on July 20, the others Sept. 1.) 26 specimens ;no fruit.

34 A high shrub or small tree,10-20 ft. Very common on hot,dry hills near the coast and occasional in dry forest a few miles inland; the forest specimens are less spiny and the flowers have a slight pinkish tinge.Flowers June-Nov. (Flowering specimen from S.Marta July 2nd; fruit Sept.)near Bonda.)26 specimens.Most of them had moulded and should be renewed.One or two only with fruit.

35 Tree,50 ft. Occasional in dry forest,3-5 miles North of Bonda. Flowers in July(very similar to No. 302, but that is a smaller tree. Specimens collected July 25. Full set;no fruit.

36 (flowers already sent in) Fruit collected near Bonda,Jan.11.)

36 Specimens from dry woods, hills,5 miles east of Cienaga, Sept. 10 Fruit sent.

36 A shrub or small tree,6-15 ft. Common in dry forest and thickets below 2000 ft. Flowers July-Oct.(This specimen is from near Bonda, July 25) Full set;25 dupl.

37 A shrub or tree,10-50 ft. Pretty common below 2500 ft. In damp forest it attains a large size. but in dry thickets is often small and shrubby.(Labeled specimen, a shrub,10 ft high,is from hillside 6 miles E. of Bonda,Aug.4;the others a large tree, forest N. of Bonda, Oct.2 Full set; no fruits.

38 Tree,50 ft.Observed only in damp forest near a stream, 5 miles E. of Bonda,about 500 ft. Aug.3(26 spec.;injured by pests.No fruit)

38 Specimens to work in with the numbered set.

39 Tree, to 50 or 60 ft. Occasional in forest, generally near streams, below 1500 ft. Flowers Aug.-Oct. (specimens are from near Masinga, Sept. 20) 26 specimens. Injured by pests, but not badly.

39 Specimens to replace the numbered set, which is not very good.

40 Prosopis dulcis Kunth(?) Isn't it Kuntze? A shrub or tree. Often flowering when 6 ft. high, but is often a spreading tree, 40 ft. high. Varies greatly in the leaves, spines etc. Very common near the coast, and seen occasionally 8-10 miles inland. The foliage has a peculiar bluish green tinge. Flowers May-Nov. (Specimen from Santa Marta, Sept. Full set; but not very good.

42 ~~Meibomia adscendens (Sw.) Kuntze.~~

41 Tree, 15-35 ft. Common in dry forest below 1000 ft. along the coast it grows side by side with No. 197. (specimen is from Bonda, June) Flowers May-Oct.

42 Meibomia adscendens (Sw.) Kuntze, Trailing, branched ascending. Flowers rosy. Local open places and clearings 2000-5000 ft. (specimens are from Jiracasaca, 2500 ft. Sept. 29) Full set, good, with fruit.

42 (Already sent in) Specimen from swampy land by the sea-coast at Buritaca, Sept. 27. This species ranges from the coast to 3000 ft, but in the region near Santa Marta it is seldom seen below 1000 ft. The flower is pink or rosy, varying somewhat in depth of coloring. The branches are ascending or partly trailing, sometimes 2-2½ ft long.

43 Meibomia axillaris (L.) Kuntze (already sent in) Specimens from a boggy and shady place near Masinga, 350 ft. Apr. 25. I suppose that this is a variety of No. 44, but the characters are constant in a series of specimens from different localities. The plant grows in wet and shady places below 1000 ft.; the branches are trailing and often rooting, 1-2 ft. long; flower stalks erect; flower deep rosy, as in No. 44.

Probably No. 45 is another variety of No. 44, but my material of that form is insufficient.

43 Near Bonda (below 500 ft.) July, No note. 13 specimens; no fruit.

44 Meibomia axillaris (L.) Kuntze. Trailing to 2-3 ft. Local in damp forest, 500-4000 ft. Flower deep rosy or crimson. May-Sept (specimens are from Cacagualito, 1500 ft. June. 5 specimens; no fruit.

Meibomia albiflora (Salzm.) Kuntze (?)

45 ^ Rare in damp forest (specimens are from Cacagualito, 1500 ft. June) No specimens except for N.Y.

46 Meibomia supina (Sw.) Britton. Variety from forest at Minca, 2000 ft. Aug. 5. I neglected to note color of flowers. A similar form was collected in forest at Campo Alegre, 1800 ft.

46 (Variety)? Ascending 12-18 inches. Flowers white. Damp and shady places below 2500 ft.; local and not common.

I place this here provisionally as I have no mature fruits which certainly belong to this form; the tormentum seems to be more deeply notched than it is in the pink-flowered form and the leaflets are generally longer. The specimen with root is from Minca, June 8; the other from a clearing near Masinga, 200 ft. March 26.

- 46 Local in damp forest below 1500 ft., generally near streams. Flowers bluish pink or nearly white. The plant is trailing, sometimes 8 ft. long; specimens are from damp forest 5m. east of Bonda, Aug. 3, 15 specimens, not very good and only half with fruit.
- 46 (already sent in). Specimens collected near Agua Dulce, damp, open place near a stream. 2200 ft. June 8. The plant in this place is strong-growing, with ascending or erect branches 2-3 ft. long. Flower pale pale rosy or pink.
The species ranges to 3000 or 3500 ft.
- 47 Meibomia supina (Sw.) Britton Upright or decumbent, 6-24 inches. A common plant in clearings, thickets or open forest below 2500 ft. Flowers May-Dec. (or through the year) rosy. These specimens are from near Bonda, Oct.
26 specimens. Quite good, but mostly without fruits.
- 47 Specimens from irrigated lands by the sea; at Cienaga, Sept. 9. In this locality it grows strong and upright, sometimes to 3 ft.
- 47 Dissecting Material. This is the commonest species below 2000, and ranges to 3000 ft. or higher. Commonly it is somewhat diffuse with ascending branches; but on damp soil it is often erect. Flowers deep rosy. It flowers through the year in favorable situations.
- 48 Meibomia tortuosa (Sw.) Kuntze Upright. 2 ft. Common in clearings below 2000 ft. May-Sept. (Specimens about half fine, the rest so-so. All with fruit.
- 48 (already sent in) Specimen from a clearing, alluvial land near Masinga April 1. This species is local on open or somewhat shady, damp ground; it is erect and branching, growing to about 2½ ft. Flowers light rosy.
- 49 Meibomia cajanifolia (DC.) Kuntze Upright, branching only near the top, ~~Upright~~ 5-8 ft., but often blossoms when 1 ft. high. A common campo species plant, 500-4000 ft. Flowers June-Dec., rosy, changing to dull blue (flowering specimen is from Agua Dulce road, Open place, 1000 ft. Nov. 26. The fruited one from Campo Alegre, 2000 ft. Nov. The heads are sometimes nearly 1 ft. broad, and form a conspicuous feature in the landscape as they wave in the wind. 26 specimens.
- 50 [^] Dolicholus minima (?) Medi ~~(?)~~ Common locally in clearings below 2500 ft. at Bonda, Cienaga etc. Flowers Aug.-Nov. yellow. Twining, 3-5 ft. (specimens are from near Bonda, Aug.) Full set, pretty good. Mostly with fruit.
- 50 Dissecting Material. The species ranges to about 2500 ft. Plants with small and generally pale leaves are common; these appear to be merely sickly roots. The species grows luxuriantly in somewhat damp and shady damp and shady situations, flowering freely in Feb.
- 51 Twining, 5-10 ft. Flower tinged with rosy or purple on vexillum. Occasional in thickets below 500 ft. generally on wet ground. Flowers Aug.-Oct. The specimens are from a swampy place by the seashore, Cienaga Sept. 22 Good, full set.
- 51 (already sent in) Specimens from swampy alluvial land by the river Buritaca near its mouth, Sept. 25. This species ranges to 2000 ft. growing in swampy ground or near water and flowering until Feb. The fresh flower is pale lilac or lavender-colored, tinged with purple on the vexillum; it changes to yellow as it begins to wilt.

- 52 Tree, 15-20 ft. Occasional on dry, rocky hills near the sea. The specimen is from Santa Marta, Sept. 14. Same as 30
- 53 Dolicholus phaseoloides Millsp. Rare in this region. Observed only on a woodland road near Masinga, about 400 ft. Dec. 2 (The dried fruits are from the same place, Aug.) Twining, 6-10 ft. 18 specimens with fruit.
- 53 Dissecting Material. I found the species flowering in Jan. in three or four places, 400-1200 ft.; but it is local and rare. I have found it only in thickets in rather dry situations.
- 54 Crotalaria stipularis Desv. (=to #103) occasional on campo land, below-3000 ft. Flowers when 3 inches high, ~~Flowers~~ but grows to 8 or 12 inches. Flowers Aug.-Dec; (specimens are from near Escalera de los Indios, Aug.-Nov. 500-1000 ft. Full set, scant.
- 54 To add to the numbered sheets.
- 54 (already sent in) variety collected near Bonda, 250 ft. Nov. 14.
 N.B. In this species the decurrent stipules are a very inconstant character; they may occur in one branch of a plant and be absent from another.
- 55 Cracca cinerea (L.) Morong. Trailing, 3-5 ft. Dry, rocky place on campo hillside near Escalera de los Indios. Aug. 2. Flower rosy purple. 6 specimens.
- 55 Dissecting Material. Probably this is an inland variety of No. 710. It is rare in open, rocky places at about 1000 ft.
- 5656 Cracca cinerea ~~Prostrata~~ Prostrate, ascending at the ends of the shoots, 1-4 or 5 ft. A common campo plant below 2500 ft. in dry and rocky or sandy places. Flowers Aug-Jan. but most freely Oct.-Nov. Flower rosy purple. They open only toward sunset or after a rain. (specimen from near Masinga, Sept. 30. Full set, rather scant; pieces too small. Few fruits.
- 56 Dissecting Material Flowers more or less throughout the year, but most freely Oct.-Dec. Flowers rather light rosy purple.
- 57 Meibomia cajanifolia Upright, branching only near the top, 2-5 ft. Flowers Oct.-Dec., deep crimson. Common locally ~~one~~ on campo land, 500-3000 ft. (specimens are from near Masinga Vieja, 1000 ft. Nov. Full set, pretty good, but no ripe fruits.
- 57 (Already sent in) Variety from open land above Masinga, 500 ft. Dec. 21. I have specimens intermediate between this and the hairy, broad-leaved form.
- 57a
~~57a~~ Meibomia tortuosa (Sw.) Kuntze
- 58 Stylosanthes Guianensis Sw.
- 58 Trailing. Ascending at ends of branches, 2-4 ft. Common on campo, 1500-2000 ft. at Campo Alegre, Aug.-Nov. Good full set.
- 58 (already sent in) Specimens from open lands at Jordan, 800 ft. Feb. 15
 At this place the plant is erect, and 3-4 ft. high. The species is not a trailer as erroneously stated in my previous note, but erect or somewhat diffuse. It is pretty common locally in open lands in the region 30-50 miles east of Santa Marta, 600-2000 ft.

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- 59 Stylosanthes biflora (L.) B.S.P. Prostrate, 6-18 inches. A common campo plant below 2000 ft. and occasional in village streets, clearings etc. Flowers Aug.-Nov. most freely in Oct. Petals bright yellow. (specimens are from near Masinga Aug.-Oct. Full set, scant and not very good.
- 59 To add to the numbered sheets.
- 60 Crotalaria pterocaula Desv. Upright, 2-2½ ft. A rare campo plant. 1000-3000 ft, Sept. 29; (The fruited specimen is from Jiracasaca, 2500 ft. Sept 29; the others from Campo near Cacagualito 1800 ft. Aug. 7 Full set.
- 60 Dissecting Material No. 711 is a form found in somewhat damp or shady situations; it cannot be separated even as a variety, the forms passing into each other. The flower varies somewhat in size. This species is wide spread but nowhere common.
- 61 Twining, 3ft. Rare on open campo land, 1500 ft -3000 , at Jiracasaca, Cacagualito etc. Flowers observed in May, Sept. and Nov. purplish. (The larger specimen is from campo on road to Agua Dulce about 2000 ft. Nov. 22. The one with fruit from near Cacagualito , May) A good, full set, some scant and three or four injured by pests.
- 61 (Already sent in) Specimen from open land near Escalera de los Indios 1000 ft. Apr. 15. This species is local and rare. 1000 ft -3000 . It appears to blossom principally Feb.-Apr. but more or less at other times. Flower dark, slaty purple. Small flowering plants, 18 inches high, are often erect.
62. Dioclea lasiocarpa Benth (?) Twining 20 ft. Occasional in dry forest and campo thickets at about 2000 ft. near Cacagualito and at Campo Alegre. Flowers freely in Dec. and flowers also some in May, but not in the summer months,
Flowers rosy purple (specimens are from near Cacagualito, Dec 22 the one with young fruit from same region May.)
62. Dissecting Material The species is common in the forest region 25-30-ft. miles east of Santa Marta, below 2500 ft. It flowers freely until March, and belated blossoms may be seen in May.
Full set; about 12 are more or less poor and injured by pests.
- 63 Indigoferalespedesoides Kunt. Upright, branching from base, 2-3 ft. A common campo plant below 3000 ft. Flowers May-Dec. reddish (specimens are from near Masinga, 500 ft-1000 August.)
Full set, scant and poor; some later.
- 64 Eriosema diffusum G. Don. Upright, branching from base, 12-18 inches. Flower yellow. Local in campo land 1000-5000 ft. Flowers May-Nov. most freely about July (the flowering specimen is from the Cyaco Mountain, 4500 ft. Sept. 30, The fruited one from Campo Alegre, 2000 ft. Sept. 20. Full set.
- 64 Add to the numbered set.
- 65 A small-tree leaved variety of no. 63. Occasional on campos below 3000 ft. Specimen is from Cacagualito, 1500 ft. May. (No specimen except for N.Y.) No dissecting material.
- 66 Cassia cordistipula Mart. Prostrate, 6-15 inches. A very common campo plant below 2500 ft. Flowers July-Dec. most freely in Nov. (specimens are from near Bonda July-Aug.) 26 specimens, not first-class, No fruit.

- 66 Add to the numbered specimens sheets.
- 67 Prostrate or procumbent. Common on the dry, hot plains 5 miles South of Guaira and occasional on campos to 1000 ft. Flowers freely in Nov. (specimens are from near Masinga, campo 500 ft. Nov. 8)
- 68 Indigofera Anil L. var. of 2717) Shrub, 5 ft. thickets, ravine at Don Diego Jaco, near the sea, Nov. 8 17 specimens.
- 68 Dissecting Material This form is pretty common in dry situations a not far from sea-level. The plants I have seen were seldom over 3 ft. high, and I fancy that this may simply be a young form of the species, the leaflets being smaller and more numerous as the plant grows older.
- 69 Galactia longiflora Arn. A shrub 3-8 ft. the young branches more or less diffuse and twining. Common on campo and in campo thickets below 3000 ft. Flowers occasionally in Aug. and freely in Sept. and Oct. Flowers bright crimson. (specimens are from near Bonda, Sept.) Full set, fair.
- 70 Cassia occidentalis L. Shrub, 3 ft. A common species in waste places, about village streets etc. below 2500 ft. Flowers July-Nov. (specimens are from near Masinga, Sept.) Full set.
- 71 Cassia Tora L. Suffrutescent, 2-3 ft.. A very common weed in clearings, about village streets, etc. below 3000 ft. Flowers July-Dec., most freely in Nov. (Specimens are from near Bonda, Oct.-Nov.) Full set. A few with fruits.
- 71 specimens to add to the numbered sheets.
- 72 Crotalaria incana L. Common locally in damp clearings and open ravines below 2000 ft. Flowers Aug.-Nov. A shrub 3-4 ft. (The flowering specimen is from near Ciénaga, Sept. 12; the fruited one from a ravine 5 miles North of Bonda, Nov. 1
- 72 specimens to add to the numbered sheets.
- 72 Dupl. Open places on slope, Playa Brava, Nov. 17 Shrub 4 ft. dull yellow.
- 73 Euphorbia Brasiliensis Lam. (Suffruticose or herbaceous) 2-3 ft. More spreading in habit than No. 76 and does not grow so high. This is the common species in dry lands near sea-level, and to 1000 ft. (Specimens were collected near Bonda 200 ft. Aug. Full set.
- 74 Upright or spreading, 12-18 inches. Arid, rocky hills 5 m. South of Guaira, near sea-level, Nov. 8 No specimens except one for N.Y. Euphorbiaceae unclassified.
- 75 Euphorbia pilulifera L. Prostrate, procumbent or (in damp soil) erect, 6-15 inches A common weed below 3000 ft. in clearings, streets, waste lands etc. and on the open grass lands. (The specimens are from clearings near Masinga, 300 ft. July Full set.
- 76 Erect, branching, 3-4 ft. A very common weed in clearings below 2000 ft. and also abundant on open, grassy hills. The specimens were collected near Masinga, 300 ft. Aug. 24
- 76 specimens from an irrigated clearing 3 miles South of Mamamatoca, March 7. mamatoca,
- 77. Prostrate, often 2 ft. long. Common on open, grassy lands (pampas) - below 1500 ft. I have not seen No. 1221 on these grass-lands, though it occurs in clearings near them. Specimens were collected near Masinga, 250 ft. Dec. 24 and Aug. Full set.

- 78 Euphorbia prostrata Ait. Prostrate, Observed only in a few places, in dooryards and village streets. The specimens were collected at Bonda, 150 ft. Aug.
26 specimens ; somewhat scant.
- 79 Euphorbia Brasiliensis Lam.
- 79 (var. of No. 73? The capsule is hairy) Near Bonda, 200 ft. Oct. 23
No specimens except for N.Y. and Carnegie. No dissecting material.
- 80 Emmeorrhiza umbellata (Spreng) Schum. A twining vine to 25 or 30 ft. 6;
Common on the borders of hillside forest, 800-2500 ft. Blossoms more or less through the year, freely Oct.-Jan. Flowers white. Specimen was collected 5 miles N.E. of Masinga, about 1000 ft. Nov. 30.
Full set; fine. Broad-leaved specimens sent.
- 81 Erect, 8-20 inches. Flowers white. Local in boggy or damp places below 2000 ft. Flowers observed in July, Aug. Dec. and March. Specimens are from Papare, damp banana plantation near sea-level, Dec. 29
Full set; rather poor.
- 82 Diodia teres Walt. Erect. Local on open, grass lands below 1500 ft. F.
Flowers July-Nov. or Dec., light crimson. Specimens were collected near Masinga about 500 ft. Aug. Generally without branches.
Full set.
- 83 Erect, generally branching, to 2 ft. A common plant of the open grass lands below 3000 ft. Flowers more or less throughout the year, white. Specimens were collected 800 ft. Aug. Full set.
- ~~84-Borreria-laevis-(Lam.)~~
- 84 Spermacoce tenuior L. (=322) Ascending, 2 ft. Open, sandy ravine 5 miles North of Bonda, 100 ft. Nov. 4 Flowers white. The hairy fruits appear to separate this, at least as a variety, from No. 322
9 specimens
- 85 Annual, erect, 6-20 inches. a very common weed below 2500 ft. often covering the ground in damp places. Flowers (in the lowland) July-Dec., white, Specimens were collected near Bonda, 150 ft. Aug. The leaves of this species are always light green. Flowers small. Full set.
- 85 Dupl. Irrigation clearing Masinga May 10,
- 86 Borreria laevis (Lam.) Grise. Erect or ascending, to 12 or 15 inches. a moderately common weed, below 2500 ft. in street or open and dry situations. In favorable places it blossoms throughout the year. Flowers white, sometimes pinkish. These specimens were collected by a road in the forest, near Masinga about 500 ft. Sept.
Full set; scant. 3 vars. sent to N.Y.
- 86 Add to the numbered sheets.
- 86 To work in.
- 87 (var. of no. 86 ?) Irrigated lands near Mamatoca, 100 ft. Nov. The leaves are broad in all my specimens, and less hairy than those of No. 86. Full set; good.
- 87 Borreria laevis (Lam.) Griseb.
- 87 11 extra specimens 11 labels. (there were 15)
- 88 Borreria parviflora Meyer Sandy, open ravine in dry forest, 5 miles North of Bonda, 100 ft. Nov. 17. A few roots only seen. This may be an aborted form of same species which I have given under another number; but I have not been able to refer it to any of them. 2 specimens.

- 89 Specimen from the banks of a stream in the forest, Minca estate, about 2500 ft. Oct. 20; growing in the water in still places.
- 89 Specimens to add to the numbered sheets.
- 89. Erect, 2-2½ ft. Observed only in two or three places, open, swampy and partially overflowed land below 500 ft. Specimens were collected near Bonda, about 200 ft.; the larger specimen July 30, the other in Sept. Flower white. Full set.
- 90. Local in damp & sheltered, or somewhat shady ground below 800 ft. It is commonly found on the banks of streams, specimens were collected near Escalera de los Indios, about 1000 ft. grass land along the border of forest, Aug. 26. Blossoms until Nov. or Dec. Full set.
- 91. Suffruticose, 2-2½ ft. This is the common form on sandy seashores. Specimens are from Mindehuaca, 40 miles East of Santa Marta, Sept. 29. Full set, but a little scant and some not very good.
- 92. A tree to 35 ft. Rather rare in dry forest below 1000 ft. Flowers July-Aug., whitish. Specimens were collected near Bonda, about 400 ft.; the flowers July 26, the fruit in Aug. Full set.
- 93 A tree to 30 ft. Moderately common in dry forest below 1000 ft. Flowers June-Oct., whitish. Specimens were collected 3 miles South of Mamatoca, 100 ft. June 9. Full set. Good.
- 94 Chiococca racemosa L. (=1835, 1836) A scandent shrub, to 25 ft. or 30. Common in dry forest and thickets below 2000 ft. Flowers June-Aug. yellowish-white. Specimens are from Bonda, 150 ft., the flowers collected July 5, the fruit in Sept. The ripe berry is white. Good, full set.
- 95. Chiococca brachiata R. et P. A shrub with long branches, sometimes scandent to 20 ft. Forest below 1500 ft. This form appears to be less common than No. 94; the leaves are generally small, and the calyx seems to be different. Flowers Sept., yellowish white. Specimens were collected near Bonda, 250 ft. July 12. Full set; good.
- 95 Specimens collected near Masinga, 250 ft. July 11. This is a shrub 6 or 8 ft. high, the branches long and slender but not scandent. Local in dry forest and thickets below 1000 ft. ; begins to flower about July 1. Corolla cream or yellowish.
- 95. 18 additional specimens. A complete set of 26, also specimens to work in with those already numbered.
- 96 Shrub, 4-6 ft. Common locally in low and damp parts of the dry forest region below 1000 ft. Flowers Nov.-Dec. pale yellowish. Specimen was collected near Mamatoca, 100 ft. Nov. Full set.
- 97. Gonzalagunea hirsuta (Jacq.) Schum. A shrub, sometimes a small, shrub-by tree, 4-15 ft. Common in thickets and on the edge of dry forest below 2500 ft. Flowers Apr.-Dec., and in the mountains throughout the year. Corolla white, Specimen is from Calavasa about 600 ft. Jan. 3. Full set.
- 98. Gonzalagunea hirsuta (Jacq.) Schum. (var. of 97?) Cacagualito, 1500-# ft. May. 8 specimens.
- 99. A shrub, to 8 ft. Observed only in the forest district adjoining the coast, 30-50 miles east of Santa Marta and below 1500 ft.; moderately common. Flowers observed in Aug. Sept and Dec., white. Large specimen is from Calavasa, about 600 ft. Dec. 28. the small one from near Cacagualito, 1000 ft. Aug. 7 Full set.

- 100 A shrubby tree, to 20 or 25 ft. Moderately common --100----12--
in the dry forest region below 200 ft. generally along the sides of
ravines or the banks of streams. Flowers June-Dec. Corolla deep purplish
involucre bright red. Specimens were collected near Bonda, 150 ft. Aug. 20.
Full set.
- 101 Diffuse, 2-3 ft. Two or three roots only observed on campo, road to
Campo Alegre, about 2000 ft. Nov. 19, Flowers pink, full set.
Full set. No fruit.
- 101 (already sent in) Specimens from open campo land at Jordan, 800 ft.
Nov. 15; common over a limited area in this locality. The plant
is erect or ascending or somewhat diffuse, sometimes 4 ft. long, t
the stem always slender; flower rather deep rosy purple (erronious-
ly called pink in my previous note) I have not seen the fruit.
- 102 Mimosa floribunda Willd. A diffuse shrub, 3-5 ft. Las Nubes, 4500 ft.
thickets near a stream, Dec. 14, only two or three plants seen.
Flower pink. Full set. No fruits except for N.Y. and Carnegie.
- 102 Dissecting Material and fruits. The latter are from Mt. Cuaca, 4500 ft.
March 23.
- 103 Crotalaria stipularis Desv. (=54)
Upright, 12-15 inches. A very rare campo plant. The specimen is from
near Escalera de los Indios, 800 ft. Aug. 22. Also observed on Agua
Dulce road, 2000 ft. Nov. 18 specimens.
- 103 (already sent in) Specimen from open land, close to forest, foot-hill
4 miles northeast of Masinga, about 800 ft. Nov. 30 I found a num-
ber of the plants in this locality, all growing among long grass,
close to the forest where they were partly shaded. No. 712 is a fe
form with narrow leaves and broad stipules. It can hardly be separa-
ted even as a variety.
- 104 Pithecolobium ligustrinum Klotszch.
Tree 15-20 ft. Rare in dry forest near Mamatoca, 150 ft. Blossoms
July and Aug. Stamens whitish. 26 specimens.
- 105 Occasional in ravines and on river banks near Bonda, 150 ft. A shrub
with long, diffuse branches, so that it appears somewhat vine-like.
8-15 ft. Flowers Aug.-Sept., white.
26 specimens. Somewhat injured by pests.
- 105 Add to the numbered sheets.
- 106 Inga eriocarpa Benth. Dissecting Material.
The tree blossoms freely Jan.-March.
- 107 Tree near Bonda Santa Marta. Aug. 19. Good, full set.
- 107 (already sent in) Specimen from dry forest near Mamatoca 100 ft., Apr.
10. Flowers rosy. This species seems to be rare, flowering princi-
pally Feb.-Apr. Probably the flowers sent in before were belated.
In April the flowering branches were nearly leafless, but the
rest of the tree was covered with old or young leaves.
- 107 Narrow-leaved variety. Low forest near Mamatoca 100 ft. Feb. 25
(The fruit belongs with this.)
- 108 Echinochloa spectabilis (Nees) Lk.
- 108 Ascending, 4-5 ft. Local on swampy lands near the coast, growing in
the water of shallow pools or ditches. Flowers observed Sept.-Nov.
(Specimens are from Cienaga, Sept. 9. Full set. Good.

- 108 Ascending, 4-5 ft. Local on swampy lands near the coast, growing in the water of shallow pools or ditches. Flowers observed Sept.-Nov. Specimens are from Cienaga, Sept. 9. Full set. Good.
- 109 Erect, to 3 ft. Common on open lands and in clearings, ranging to 3000 ft. Flowers freely July-Dec. and, in favorable places, throughout the year. Specimens were collected near Bonda, 150-250 ft. Aug.-Sept. Full set; scant, most with leaves, roots.

- 109 Sporobolus jacquemontii Kunth.
- 110 Variety, from a cliff by the seashore at Cienaga, Sept. 9. The stems were over 2 ft. long.
- 110 Variety from irrigated lands at Cienaga, Sept. 9. Erect or nearly so.
- 110 Variety from Minca, 2000 ft. Aug. 8, in a dooryard. Common in similar situations.

- 110 Eragrostis ciliaris laxa Kuntze
- 110 Generally ascending, sometimes erect or decumbent or even prostrate, 4-25 inches. Widely distributed and very common from 4000 ft. to sea-level, growing in arid or damp, open or shady situations, and by the seashore. The varieties look like distinct species, but pass into each other. Flowers more or less throughout the year, more abundantly during the rains, June-Dec. Specimens are from Bonda, 150 ft. Aug.-Sept. Full set. Good with roots.

- 111 Eragrostis conferta Trin.
- 111 Erect, to 3 ft. Local and rather rare in wet situations within a few miles of the coast and below 500 ft. generally it grows with its roots in the water, and I have found it oftenest in irrigation ditches especially in shady situations. Specimens are from Cienaga, Sept. 12. Full set, good but no roots.

- 112 Cienaga, Sept. 12; low land near the coast. Brought in by a native collector and I have no notes of the habit. No specimens except small one for N.Y.

- 113 Sporobolus Virginicus (L.) Kth.
- 113 ~~Eragrostis~~ eriocarpa Benth. (927)
Specimen from sandy seashore at Playa Brava, Oct. 29. The root is very long and perpendicular in the sand. Local on salt marshes and plains by the seashore. Specimens are from Cienaga, Sept. Full set, with roots; good.

- 113 Specimens to work in with the numbered set.

- 114 Sporobolus argutus (Nees) Kth.
- 114 Ascending, 12-18 inches. Common on plains along the coast, where the soil is alternately flooded and dry; it often grows in ditches and pools. Flowers principally during the rains. Aug.-Sept. Dec. Specimens are from Cienaga, Sept. 10. Full set; scant, no roots.

- 115 Panicum mexicanum Scribn.
- 115 Erect or ascending generally 3-4 ft. high, but grows occasionally to 6 ft. Local in damp and shady or sheltered places below 2500 ft. Flowers principally Aug.-Nov. 2500 ft. The lower leaves are sometimes 4 inches broad; they are transversely incurved, and generally split in the press. Specimen was collected near Bonda Masinga, 250 ft. Aug. 31. Full set, some rather poor.

- 116 Oryza latifolia L.
- 116 Erect, 5-6 ft. Local in swampy places or near water, below 2500 ft. Flowers throughout the year. Specimen was collected near Bonda, 250 ft. Oct. 23. Full set.

- 116 Specimens to work in with the numbered sheets.

- 117 Lascliacis-procerrima (Hack.) Hitchc.
- 117m. Erect, to 6 ft. A common mountain grass, generally in thickets ~~or~~ along the borders of forest, 1500-5000 ft. Flowers principally Aug.-Feb. The ripe panicles are sometimes 2 ft. or more long. Specimens are from Jiracasaca, 2500 ft. Sept. 29. Full set, poor.
- 118 Anthephora hermaphrodita (L.) Kuntze.
Erect to 2 ft. Local below 3000 ft., principally in clearings. Flowers freely July-Jan. and in damp places throughout the year. Specimens were collected near Masinga, 250 ft. Oct.
20 specimens, most with roots, some poor.
- 119 Bouteloua sp.
- 119 Ascending. Observed only on open, dry banks by the railroad line, low land near the sea between Gaira and Don Jaco, Sept. 18.
Full set, Rather scant, all with roots.
- 120 Bouteloua americana (L.) Scribn.
- 120. Generally decumbent or prostrate, sometimes ascending or even erect. 10-20 inches. Common below 1500 ft., generally in shady and rather damp places, borders of forest, thickets etc.; also occurs on the open land, associated with No. 1373 but is easily distinguished by its habit, size and ~~flowers~~ panicle. Flowers Oct.-Dec. Specimens are from Bohda, 150 ft., Oct. 25,
Full set, some with roots.
- 121 Perilema crinita Presl.
Erect, in small clumps, Location in sheltered places in the open lands in thickets and in the borders of dry forest, 1500-3000 ft. Flowers Nov.-Jan. Specimens were ~~cultivated~~ collected on the ~~Minca~~ Minca road, 1800 ft., Nov. 22. The leaves on many flowering plants were all withered.
Full set with roots; leaves poor.
- 122 Aegorogon sp
Ascending, or decumbent, to 8 or 10 inches. Open ridge, spur of the Cuaco Mountain, 3500 ft. Sept. 29, growing among rocks. Rare in this locality and not observed elsewhere. My specimens were hastily collected and there are no roots.
7 specimens; very scant, no roots.
- 123 Paspalum plicatulum Mx.
Erect, to 4 ft. A common species on open hill-sides below 3000 ft. Flowers July-Dec. and later in favorable places. Specimen is from Minca, 2000 ft. Aug. 5. Full set.
Roots for N.Y. and Carnegie.
- 123 Variety from rocks in the bed of a stream near Masinga, 250 ft. Sept. 21. I have found this form in similar situations in several localities.
- 123 Variety from open land near Cacagualito, Aug. 9
- ~~123~~ Variety from rocks
- 124 Paspalum hemicryptum Griseb.
Erect. Rare in damp and sheltered places in the open lands, and in old clearings, near Minca and Agua Dulce, 200-2500 ft. Flowers observed June-Nov. Specimens are from Minca, 2000 ft. Aug. 8.
Full set, not very good.
- 125. Paspalum virgatum L.
Erect, forming large clumps, 4-4½ ft A common species on boggy, or irrigated land, in damp clearings etc. 3000 ft. to sea-level. Flowers principally in the rainy season - i.e. May -Dec. Specimens are from Cienaga, near Sea level, Sept. 9.
Full set ; roots for N.Y.

126. Paspalum virgatum L.
Erect, to 5 ft. Observed only in two or three places below 500 f
on boggy or irrigated land. Flowers principally June-Nov.
Specimens were collected near Masinga, 250 ft. Sept. Full set.

127 Eleusine ludica (L.) Gaertn.
Erect, 1-2 ft. A common grass in clearings, by roadsides etc.,
3500 ft. to sea-level; found on boggy or dry ground and in
open or shady places. Very variable in the leaves, size and
branches of the panicle etc., and the varieties look like dif-
ferent species, but are inconstant. Flowers throughout the year.
The specimen with root is from Onaca, 2500 ft. March; the other
from irrigated land at Cienaga, near sea-level, Sept. 9,

127 Damp rocks, shady place river-shore. Below Masinga Vieja July 24
Full set.

127 Variety collected 3-5 miles south of Mamatoca, in open, damp
places, 100-400 ft. Nov. 21.

127 Variety from Bonda. Open place near a stream, 150 ft. , Oct.

127. Variety from Mamacasaca, 2000 ft. in a clearing, Aug. 7.

128 Paspalum Sieberianum Steud.
Erect, 3-4 ft. Common on swampy flats by the river Buritaca near
its mouth in the sea. Collected Sept. 24,
Full sets. Roots for N.Y. and Carnegie.

128 (There is a full set from Buritaca.)

128 Specimen collected 4 miles N.E. of Bonda, wet shores of a stream
in the forest. Oct. 29. The species occurs in similar situations
below 500 ft.

128 Specimens to add to the numbered sheets.

129 Dactyloctenium Aegyptium (L.) Willd.
Ascending from a creeping stock or sometimes erect; commonly 6-12
inches high, but in irrigated lands it sometimes attains 24 inches.
Local below 1000 ft.; it is pretty common at Cienaga and other
places near the seashore, but is most abundant on the low rather
~~plains~~ rare inland. Grows in dry or wet situations, and on the
seashore, but is most abundant on the low plains in the vicinity
of the coast. Specimens are from Cienaga, Sept. 10, on plains
near the coast.

Full sets with roots. Rather poor for N.Y. and Carnegie

129 To add to numbered sheets.

129. Dwarf variety from Masinga, 250 ft., Sept.

129 Variety from irrigated lands at Cienaga, Sept. 10.

130. Andropogon feensis Fourn.
Erect, to 2 1/2 ft. Local on open hillsides 500-3000 ft. Flowers
Sept.-Nov. Specimens are from Jiracasaca, 2500 ft. Sept. 27
Full set, mostly with roots.

131. variety.
Playa Brava. Nov. in damp forest back of the sands. alluvial
soil. The forest specimens are always less robust and less free-
flowering than those growing on open rocks.
Full set; no roots except for N.Y.

131. Local near the seashore, on rocks just above reach of the surf, and in forest back of the sands; inland it occurs rarely in dry and shady places to 500 ft. Erect from a creeping stock, to 2 ft. Specimens are from Playa Brava, Nov. 2, on dry rocks. Flowers Oct.-Nov.

132. Eragrostis acutiflora Nees.

Open lands in dry places, among rocks, on ridges etc.; rarely in clearings, Moderately common 500 -3000 ft. Flowers Oct.-Dec.. Specimens were collected 5 miles South of Masinga, 500 ft., Nov.

Full set, good, but get more large heads in Dec.

133 Hymenachne amplexicaulis (Rudge) Nees.

133. Erect from a rooting stock, 4-5 ft. Swampy flats by the River ~~E~~ Buritaca near its mouth in the sea, Sept. 25; grows where the root is immersed. Found only in one limited space and not observed elsewhere.

Full set; good. Dissecting material broken from this one.

134. Aristida scabra (H.B.K.) Kunth.

Erect to 3 ft. Common on the open lands below 2500 ft. generally in sheltered places, about thickets, sides of ravines etc. Flowers Nov.-Jan. Specimens were collected near Bonda, 250 ft. Nov.-Dec.

Full set; roots for N.Y. and Carnegie.

134. Variety, found principally near the sea or in dry and open places. Specimen is from Playa Brava, Nov. 2, on rocks by the seashore.

135. Muhlenbergia exilis Fourn.

Local below 3000 ft. in deep ravines by streams; commonly growing on rocks at the base of shady cliffs, and close to the water. In the few places where I have seen it, it grew abundantly. Flowers Nov.-Jan. Specimens were collected near Bonda, 150 ft. Dec. 6.

grass The rocks where this grows are exposed to freshets until about the middle of Nov.

Good, full set.

136 Aristida setifolia H.B.K.

Erect, to 2 ft. Common on open lands, hillsides, 3000 ft. to sea-level; grows freely on ridges and on rocks near the sea. Flowers Oct. -Dec. Specimens were collected near Masinga Vieja, 800 ft. Nov.

Full set with roots. Somewhat lacking in large flower heads.

137. Bouteloua filiformis (Fourn.) Griff.

Erect, to 2½ ft. A common species of the open lands, below 3000 ft. Flowers Sept.-Dec. Specimens were collected near Escalera de los Indios, 1000 ft. Sept. 25

Full set, rather scant and no roots except for N.Y. and Carnegie.

138. Aristida capillacea Lam.

Open lands 500-3000 ft.; local on damp banks. Flowers Nov.-Jan. Specimens are from Onaca, 2500 ft. Dec. 6. Good, full set.

138 Duplicates.

139. Sorghastrum sp.

Erect, large specimens sometimes decumbent, 2-4 ft. Local on open lands, 500-1500 ft. Flowers Nov.-Dec. Specimens were collected 5 miles South of Mamatoca, 500 ft. Nov. 21.

Full set, 4 or 5 with roots.

140.

Specimens from open land on a ridge near Minca, 2500 ft. Oct. 1, 5. The species proves to be common locally on dry ridges. 500-2500 ft.

- 140 Pentarrhaphis scabra (H.B.K.)
- 140. Open lands, rare on dry ridges, 500-1500 ft. Flowers Oct.-Nov.
Specimens were collected 3 miles South of Masinga, 800 ft. Oct. 27.
Full set, all with roots.
- 140 Specimens to add to the numbered sets. sheets.
- 141 Aristida scabra (H.B.K.) Kunth.
(var. of 134?) Erect in large clumps, 4 ft. Clearing, Bonda, 150 ft.
Nov. 20.
Probably a more luxuriant form of No. 134, due to the situation.
The spikelets are rather larger. 12 specimens, mostly with roots.
- 142 Paspalum carinatum Humb. & Bonpl.
- 142. Open hillsides, 800-3000 ft. Less common than No. 143 and flowers
somewhat later. Nov.-Jan. Specimen is from the Minca Road, 800 ft.,
Nov. 22 Spikes generally single. sometimes geminate.
Full set, most with roots.
- 142 specimens to add to the numbered sheets.
- 143. Paspalum heterotrichon Trin. (143 Paspalum membranaceum Lam.)
Erect to 2 ft. Common on open hill-sides, 500-3000 ft. and occa-
sionally seen lower to sea-level. Flowers Nov.-Dec. Specimens
were collected near Escalera de los Indios, 800 ft. Nov.
Full set with roots.
- 144 Ischaemum latifolium (Spreng.) Kunth.
Erect or decumbent, to 4 ft. Local and rare on open lands 1500-3000 ft
Generally in sheltered places near forest. Flowers Apr.-Nov. I found
a single root near Bonda, 250 ft. on rocks by a stream; no doubt it
was ~~was-brought~~ from seed brought down by a freshet. Specimens are from
Campo Alegre, 2000 ft. Sept. 22 Full set. No roots.
- 145 Chloris polydactyla (Linn.) Sw.
Erect, to 3 ft. A common species on low, wet or irrigated lands near
the sea and for a few miles inland; I have not observed it above
250 ft. Flowers (apparently) throughout the year. Specimens were col-
lected near Mamatoa. Oct.
Full set, 2 roots besides those for Carnegie and N.E.
- 146. Andropogon sp
Erect, to 2 ft. forming small tufts. Local and rare on rocks by the
seashore, often within reach of the spray. Occasional plants
occur inland to 5000 ft. on dry banks. Flowers Aug.-Nov. The spec-
imen with root was collected near Masinga, 250 ft. Aug. 24; the
other is from the seashore at Santa Marta, Sept. 17
Full set; some roots.
- 146 specimens to add to the numbered sheets.
- 147.
Erect, to 2 1/2 ft. Common in clearings and on open lands, 3500 ft. to
sea-level. Flowers principally July-Jan. Specimens are from
Jiracasaca, 2500 ft., Sept. 26.
Full set, not very good; few roots.
- 147 3 additional
- 148. Arthrostylidium sp.
Scandent to 20 ft. Common in dry forest on hillsides, 500-1500 ft;
it often grows so thickly that it is difficult to force the way ~~th~~
through it. Flowers July -Sept. Specimens collected near Masinga,
600 ft. July 31.
Full set, but sca t and specimens are only branches broken off from
main stem. Get joints.

149. Eriochloa polystachya
 Erect, to 2-2½ ft. Local on irrigated lands near the sea at Cien Cienaga, Collected Sept. 12.
 Full set. poor, flowers more or less fallen off. No roots except for N.Y. and Carnegie
150. Echinochloa colona (L.) Link.
 Erect. to 2 ft. Local and rather rare on boggy sea-land or irrigated 1 lands near sea-level, near the coast and for a few miles inland.
 Specimens are from Cienaga, Sept. 6.
 Full set, most with roots.
- 151 Panicum paspaloides Pers.
 Ascending, from a strong, creeping stock, 1-2½ ft. Local on swampy ground, by lagoons, etc. along the coast, and inland, near sea-level, in ditches. The coast plants are stronger growing and have light green, stiffish leaves, the specimens from inland localities generally having darker and thinner leaves. Specimens are from the coast at Neguange, March 21.
 Full set, no roots.
- 152 Chaetochloa setosa (Sw.) Scribn.
 Plains near sea-level, Gaira to Cienaga Sept. My note was lost, and I do not remember whether it was in the forest or on open lands. Full set, scant. No roots.
- 153 Cenchrus multiflorus Presl.
 Ascending, I have only 3 or 4 poor specimens, collected in a clearing near Masinga, 250 ft. Dec. 2.
 Full set, most with roots.
- 153 Specimens collected Nov. 15 4 miles east of Bonda, 500 ft. in a thicket on open lands; about 50 roots were seen in this place and I have found it, rarely in one or two other places. Normally it is erect, and 1½ - 3 ft high.
 set.
- 154 Cyperus digitatus Roxb. Var.? Erect, to 2½ ft. Local in dry forest and thickets, especially on the sides of ravines or near streams; it occurs occasionally in clearings, not observed above 500 ft. Flowers Aug.-Oct. or Nov. Specimens are from Bonda, 150 ft. Aug. 28 - Sept. 15. It is rare in this locality, but I found it growing abundantly in woods near Cienaga, Sept.
 Full set, only one or two roots besides those for N.Y. and Carnegie.
- 155 Chaetochloa setosa (Sw.) Scribn.
 Note lost. Perhaps from Cienaga, Sept. No dissecting material. 10 specimens most with roots; not very good.
155. Specimen from dry thickets 5 miles South of Mamatoca, 250 ft. Oct 21. Erect, 1-2½ ft. growing in small clumps.
- 156 Pennisetum sp.
 Ascending (or erect), 3-5 ft. Local and rather rare in open lands generally on ridges, 1000 ft. - 4000. Flowers Sept. - Dec. Well Well grown plants generally have three or four lateral panicles, with or without a terminal one; and the panicles are frequently split at the top. Specimens were collected 4 miles South of Mamatoca Masinga, 1000 ft. Oct.
 Full set; some rather immature. No roots.
156. variety found by a stream in the forest, 3 miles North of Bonda, 150 ft. , Nov. 11. No doubt the seed had been brought down by a freshet, as the grass does not, ordinarily range so low. Only one root was found. No. 2532.
- 156 Specimens to add to the numbered sheets.

157 Oplismenus cristatus Presl.

--19

Ascending, a common grass in dry forest below 1500 ft., often covering the ground near streams or in damp places; occurs occasionally as high as 2500 ft. Flowers Oct.-Dec. and in the mountains somewhat earlier, in Sept. Specimens were collected 3 miles North of Bonda, 100 ft. Oct. 19. Full sets with ~~roots~~ short roots. Good roots for N.Y. and Carnegie. Flowers were not well developed.

157 Add to numbered sheets.

----- Quebra Concha Nov. 18

158 Mazia aliena (Spreng.) Scribn. & Merr.

Ascending, Observed only along the railroad line between Gaira and Don Jaco, dry plains near the sea, Sept. 18
Full set. with roots; scant.

159 Cenchrus sp. Decumbent, 1-2 ft. from a trailing stock, several feet long. Local on sandy seashores; often half buried in the sand. Specimens are from Don Jaco, Sept. 16,

Full set, some not very good; no roots.

160 Cenchrus echinatus L. Erect, or decumbent, 1-2½ ft. Common locally in damp clearings, waste places etc. 3000 ft. to sea-level. Flowers principally in the rainy season, June-Dec. Specimens are from Bonda, 150 ft. Aug. The burrs are a great pest.

Full set. No roots except for N.Y. and Carnegie.

161 Paspalum saccharoides Nees. E

Erect or decumbent, 4-5 ft. (root not noted). Local and rather rare on damp, open banks, sides of ravines etc. 2000-5000 ft. Flowers May-Dec. and, perhaps throughout the year. Specimens were collected near Jiracasaca 2500 ft. Dec. Sept. 27 Full set.

161 Subscandent, 6-8 ft. Old clearing back of Agua Dulce, near stream, Aug. 8 There were 13; make full set.

161 2 additional specimens.

162 No specimens; no label.

163 Panicum strigosum Muhl.

Local on open hillsides, 1500-3000 ft. Specimens are from Jiracasaca, 2500 ft. Sept. 30. Flowers Aug.-Nov. Full set.

163 Specimens to add to numbered sheets

164 Panicum hirsutum

Erect to 6 ft. Local in open, boggy places near the seashore and for a few miles inland but near sea-level. Specimens are from Cienaga, Sept. 9. 18 specimens

165 Panicum ghiesbreghtii Fourn. E

Erect, large plants. Sometimes decumbent, 1-8 ft. Local in damp, open places, especially irrigated lands, below 500 ft. (not observed above that level) Flowers May-Oct. and perhaps throughout the year. Specimens were collected near Masinga, 250 ft. May. The species is common on irrigated lands near Cienaga.

Full set, a few roots.

165 Banks of canal above plant (electric light) Bonda. July 10
To work in.

166 Panicum virgatum L.

Erect or ascending 4-5 ft. a common species of the open lands 500-500-4000 ft.; near sea-level grows freely in damp clearings, swamps and irrigated lands. On open hillsides it flowers principally June-Jan. Specimens were collected near Cacagualito, 2000

166 ft., Aug. 7. Full set. No roots except for N.Y. & Carnegie. --20--

167 Panicum brevifolium L.

Ascending from a trailing stock 1-3 ft. long. Common locally on damp and shady ground below 2500 ft. Flowers principally Aug.-Oct., but more or less throughout the year. Specimens are from Cacagualito 1500 ft., Aug. 7

Full set; fair, No roots except for N.Y.

168 Panicum lasdanthum Trin.

Ascending, to 4 ft. Damp places in forest near Masinga 400-600 ft. not observed elsewhere. Flowers July-Oct. The specimens were collected in Sept. Full set.

168 Specimens to add to the numbered sheets.

169 Panicum zizanioides H.B.K.

Ascending from a creeping root, 3-5 ft. Rare in shady, damp places, generally near water, 3000 ft. to sea-level. Flowers observed in Sept. and April. Specimens were collected 5 miles North of Bonda in a water-course, 150 ft. Apr. 28.

Full set; roots for N.Y. and Carnegie.

169 Specimen from swampy forest by the seashore at Buritaca, Sept. 27.

169 Specimens from Jiracasaca, 2500 ft. Sept. 29.

169 Slight variety. Ascending rooting 3 ft. Common locally on wet river banks Don Diego. May 7, 179

170 Panicum aturense H.B.K. Decumbent, from a creeping stock, 2-3 ft.

Rare in damp clearings below 2500 ft. Specimens were collected near Masinga below, 250 ft. Sept. 24. I have flowers from Minca 2000 ft. collected at the end of May.

Full set; good. Roots for N.Y. and Carnegie.

170 Specimens to work in/ with the numbered sheets.

171 Panicum uncinatum

Ascending or decumbent from a rooting stock, 1-2 ft. Local in damp shady places, 500-3000 ft. Flowers principally July-Dec. Specimens is from Jiracasaca, 2500 ft. Sept. 28.

Full set, some good poor. Few roots.

172 Pharus scaber H.B.K.

Erect, to 2 ft. Common locally in damp mountain forest, 1000-3000 ft. The seeds catch on clothing like burr-burs. Flowers throughout the year, but principally during the rains, June-Dec. Specimens are from Cacagualito, 1500 ft., Nov.

Full set, mostly with roots. Good.

172 Make up with other set a full set (putting in all roots) and set of duplicates.

173 Panicum prostratum Lam.

Erect or ascending from a creeping stock, 12-18 inches. Local in damp and shady places, especially irrigated land, near sea-level, at Santa Marta, Sept. 17. Full set; a few roots.

173 Specimens to add to the numbered sheets.

174 Lasiacis sp. Shrubby, at length scandent, 4-8 ft. Common in dry thickets and forest, 1500 ft. to sea-level. Flowers July-Oct. and again

Dec.-Jan. Specimens are from Cienaga, near sea-level, Sept., 11

Good, full set, but specimens do not show branches.

174 specimens to add to numbered sheets.

174 - Va. Proby El-Libano-plantation-100-ft.-damp-thickets-Oct. 8, Scandent,

Variety from El Libano plantation 100 ft. damp thickets, Oct. 8. Scandent, 8 ft. high.

175 Paspalum clavuliferum Wright

Local and rare and the open lands, in shady places or on the borders of thickets, below 1000 ft. Flowers Sept.-Dec. Specimens were collected near Masinga, 250 ft. Nov. 2.

Full set with roots.

176 Panicum monostachyum H.B. K.

Erect or ascending, to $2\frac{1}{2}$ ft. Open ridge, border of forest. Cuaco Mountain, 4500 ft., Sept., 27. Not observed elsewhere.

Full set; no roots. Specimens also found near Onaca, Aug. 29.

177 Microchloa setacea R.Br.

Common on the open lands in dry places below 1500 ft.; grows scattered over the surface. It appears only at the season of the heaviest rains, flowering Sept. 20-Nov. 15 or thereabouts. Specimens were collected near Masinga, Oct.

Good, full set.

178 Paspalum conjugatum Berg.

Erect or ascending, from a stoloniferous stock, 1- $2\frac{1}{2}$ ft. Common below 3000 ft., principally in clearings; on damp ground it flowers throughout the year. Specimens are from Bonda, 150 ft., Oct.

Full set; with roots.

178 Specimens to add to the numbered sheets.

178 Variety

from swampy thickets 3 miles South of Mamatoca 100 ft. Oct. 8. constantly smaller than the ordinary form, with short spikes and smaller spikelets

178 Paspalum vaginatum Swartz.

Ascending from a rooting stock, 1-2 ft. Common along the seashore, by lagoons and on salt marshes. Specimens are from Buritaca, Sept. 28. Full set. Roots for N.Y. and Carnegie.

179 Duplicates.

fimbriatum (Link) Nash.

180. Syntherisma setosum (Desv.) Nash. in rather dry situations. Ascending, seldom more than 1 ft. high. Common, below 2500 ft., clearings, thickets etc. Flowers principally Sept.-Dec. Specimens are from Bonda, 150 ft., Oct. 7.

The sheath is never pilose. Small plants commonly have only 2 spikes. Full set, mostly with short roots.

180 Specimens to work in with the numbered sheets.

180, Variety from sandy ground by the seashore at Playa Brava, Oct. 29.

181 Syntherisma filiformis (L.) Nash.

Erect, 6 inches to $2\frac{1}{2}$ ft. Common on open hillsides and in thickets etc. below 1500 ft. Flowers Aug.-Nov. Very variable in the down

183 5 additional specimens and specimens to add to the numbered sheets.

I omitted this in copying.

Variety from El Libano plantation 100 ft. damp thickets, Oct. 8. Scandent, 8 ft. high.

175 Paspalum clavuliferum Wright

Local and rare and the open lands, in shady places or on the borders of thickets, below 1000 ft. Flowers Sept.-Dec. Specimens were collected near Masinga, 250 ft. Nov. 2.

Full set with roots.

176 Panicum monostachyum H.B. K.

Erect or ascending, to 2½ ft. Open ridge, border of forest. Cuaco Mountain, 4500 ft., Sept., 27. Not observed elsewhere.

Full set; no roots. Specimens also found near Onaca, Aug. 29.

177 Microchloa setacea R.Br.

Common on the open lands in dry places below 1500 ft.; grows scattered over the surface. It appears only at the season of the heaviest rains, flowering Sept. 20-Nov. 15 or thereabouts. Specimens were collected near Masinga, Oct.

Good, full set.

178 Paspalum Conjugatum Berg.

Erect or ascending, from a stoloniferous stock, 1-2½ ft. Common below 3000 ft., principally in clearings; in damp ground it flowers throughout the year. Specimens are from Bonda, 150 ft., Oct.

Full set, with roots.

178 Specimens to add to the numbered sheets.

178 Variety

from swampy thickets 3 miles South of Mamatoca 100 ft. Oct. 8. constantly smaller than the ordinary form, with short spikes and smaller spikelets

178 Paspalum vaginatum Swartz.

Ascending from a rooting stock, 1-2 ft. Common along the seashore, by lagoons and on salt marshes. Specimens are from Buritaca, Sept. 28. Full set. Roots for N.Y. and Carnegie.

179 Duplicates.

fimbriatum (Link) Nash.

180. Syntherisma cotosum (Desv.) Nash. in rather dry situations.

Ascending, seldom more than 1 ft. high. Common, below 2500 ft., clearings, thickets etc. Flowers principally Sept.-Dec. Specimens are from Bonda, 150 ft., Oct. 7.

The sheath is never pilose. Small plants commonly have only 2 spikes. Full set, mostly with short roots.

180 Specimens to work in with the numbered sheets.

180, Variety from sandy ground by the seashore at Playa Brava, Oct. 29.

181 Syntherisma filiformis (L.) Nash.

Erect, 6 inches to 2½ ft. Common on open hillsides and in thickets below 1500 ft. Flowers Aug.-Nov. Very variable in the down of the leaves and sheath; as a rule the smaller plants are most hairy. Specimens were collected near Escalera de los Indios, 800 ft., Aug. 21. Full set, with roots.

181 Specimens collected near Masinga, 250 ft. Sept. 21-Nov. 2.

182. Axonopus compressus (Sw.) Beauv.

Erect or ascending, sometimes decumbent, Common in damp and often shady situations, below 2500 ft. especially the banks of streams, where the plants are exposed to freshets. Flowers principally Aug.-Dec. Specimens were collected near Bonda, 150 ft., Sept.

My numerous specimens differ constantly from #183 in the somewhat differently shaped spikelets. Full set, but poor, Roots with all badly preserved.

182. variety from damp woods by the seashore at the mouth of the River -22-
Buritaca, Sept. 28; the ground is exposed to freshets. The specimens
were from this locality are generally decumbent from a rooting
stock, and the leaves are longer.

183

Axonopus sp.

Erect, to 20 or 24 inches. Rare in damp clearings; not observed above
1000 ft. Specimens were collected near Bonda, 150 ft. Sept. 22
Full set most with roots.

184 Syntherisma setosum (Desv.) Nash.

Ascending from a rooting stock, 1-2½ ft. A very common and variable
grass in clearings, waste places and damp parts of the open lands, 20
+ 3000 ft. - sea-level. Flowers in damp situations, throughout the year.
Specimens are from Cacagualito, 1500 ft. Aug. 8., in a clearing.
Full set; scant and rather ~~poor~~ - only the variety - poor; some
only the variety. No roots except for N.Y.

184. Variety from irrigated land near Mamatoca, 100 ft., Oct. 20. I have
similar ones from irrigated lands at Cienaga.

185. Damp clearing, hillside at Las Partidas, 3500 ft. Apr. 11. Only a few
collected and not observed elsewhere. 4 specimens.
Roots for N.Y. and Carnegie.

186 Syntherisma sanguinalis (L.) Dulac

Ascending from a creeping stock, to 2 ft. Moderately common and
widely distributed below 2500 ft. in clearings, by streams and
in swamps, and sometimes on open hillsides. Flowers, in damp sit-
uations, throughout the year. Specimens were collected 3 miles South
of Mamatoca, by swampy pools, March 8. Full set; a few roots.

186. Specimens from open land, near Escalera de los Indios, 800 ft., Aug. 1

186 Specimens from a clearing near Bonda, 150 ft. Nov. 3 ft. high.

Don Diego Thickets near seashore in sand. May 8.

186 Don Diego May 12 Low, sandy land near river. Full set.

187 Syntherisma panicea (Sw.) Nash.

Erect or ascending, often from a rooting (perennial?) stock; the
larger stems are sometimes over 2 ft. high. Damp clearing, hillside,
Jiracasaca, 2500 ft., Sept. 30.

My specimens (all collected in one place) differ constantly from No.
No. 181 in the hairy leaf etc. In No. 181 the leaf is never hairy ~~and~~
except at the base inside, and the sheath is often glabrous, espec-
ially in large specimens. I have never seen plants of 181 arising from
a rooting stock, and, near Sea-level at least, it is an annual.

Full set, rather scant, 2 or 3 roots besides those for N.Y. and
Carnegie.

188 Leptochloa domingensis (Jacq.) Trin.

Erect, to 2½ ft. Common on open, damp ground, irrigated lands etc. &
below 2500 ft. Flowers, in favorable places, throughout the year.
Specimens are from Masinga, 250 ft. Oct. 26.

Full set. Roots for N.Y. and Carnegie.

188 Specimens to add to the numbered sheets.

189. Gymnopogon filiformis Griseb.

Annual. Erect, or when well grown, often decumbent, 1-2½ ft. Common &
locally in open hillsides below 2500 ft. Flowers Oct. Nov. Specimens
were collected 7 miles East of Bonda, 2000 ft., Nov. 10.

Full set no roots except for N.Y.

1

190 Andropogon ruprechtii (Fourn.) Hack.
Erect, to 5 ft. Local on open lands, 500-2500 ft. generally in damp hollows; Flowers June-Aug. and Nov.-Dec. Specimens were collected 2 miles East of Masinga, 500 ft., Nov. 10 Full set.

190 Specimens to add to the numbered sheets.

191 Heteropogon contortus (L.) Beauv.
Erect, 2-2½ ft. often forming large clumps, common on open lands, 500-2500 ft. Flowers June-Oct. Specimens were collected near Escalera de los Indios, 600 ft. Aug. 27. Full set.

192 No labels; no name.

193 Heteropogon melanocarpus (Ell.) Benth.
Erect, 5-7 ft. Local and rather rare on open lands, in sheltered places, near the borders of forest etc. 500-2000 ft. Flowers Oct.-Dec. Specimens were collected near Masinga, 600 ft. Oct. 27, Full set, good but no roots except for N.Y. and Carnegie.

194 ~~Erect~~ Trachypogon montufari (H. & K.) Nees.
Erect to 3 ft. Common on open lands below 2500 ft. generally f growing scattered over the surface or in small tufts. Flowers Aug.-Sept. and Nov.-Dec. The flower is yellow. Specimens were collected near Escalera de los Indios 800 ft. Aug. 27
22 specimens scant and no roots.

195 Andropogon feensis Fourn.
Erect, to 4 ft. A common grass on open hillsides, 1000 -3000 ft. Flowers Sept.-Nov. Specimens were collected near Jiracasaca, 2500 ft., Sept. 25 Full set.

196 Andropogon condensatus (Nees) H.B.K.
196 Erect 3-4 ft. Local and rare on open lands, 800-2500 ft. Flowers Sept. Oct. Specimens are from Campo Alegre, 1500 ft. Sept. 22
22 specimens ; no roots.
196 4 additional.

197 Andropogon condensatus
Erect, to 3 ft. Common, locally on open lands, 500-2500 ft. Flowers Oct.-Dec. Specimens were collected 2 miles southeast of Masinga, 500 ft. Oct. 27 Full set.
197 Specimens to add to numbered sheets.

198 Andropogon bicomis L.
Erect, 4-5 ft. Damp places on the open lands, and clearings; common below 3000 ft. It forms large clumps. Flowers principally from Sept. to Dec. but more or less from May to Feb., Commonly the leaves are dry and red on flowering plants. Specimen is from Jiracasaca. 2500 ft. Sept. 22.
Full set. Roots for N.Y. and Carnegie.

199 Andropogon leucostachys H.B.K.
Erect, to 2½ or 3 ft. Local and rare on open hillsides, 800-3000 ft. Flowers Sept.-Oct. and Apr.-May (at the latter date I have observed it only where grass-lands have been burned over and young plants have sprung up) Commonly it grows scattered over the surface, but sometimes forms large tufts. Specimens are from Jiracasaca, 2500 ft. Sept. 25, Full set with roots.
199 Specimens from lands which have been burned over. The large one is from Campo Alegre, 1500 ft. Nov. 20; the other from Escalera de los Indios., 2 1000 ft. Apr. 25.

200. Panicum insulare (L.) Meyer

Erect, to 2½ ft. Common in clearings and in damp places on the open lands, 3000 ft. to sea-level. Flowers principally July-Dec., but more or less throughout the year. Specimens were collected near Masinga, 250 ft., Sept. 23.

Full set. No roots except for N.Y. and Carnegie.

200. Specimens from the Seashore at Playa Brava, Oct. 26. The grass is abundant along the coast, and is much more luxuriant there than it is inland, growing to 4-5 ft., with large panicles. It appears to be normally a coast species.

201 Gynerium sagittatum (Aubl.) Beauv.

Erect, to 15 ft. or more. Local on swampy ground, low banks of streams etc. ranging from 2000 ft. to sea-level. The panicle is often 2½ ft. long, the branch is drooping; commonly the stalk is 4 ft. long-above the upper leaves. Flowers more or less from May-Jan. and perhaps throughout the year. Specimen is from Jordan 800 ft. Nov

Full set.

202 Panicum laxum Sw.

Erect or ascending from a creeping root to 2½ ft., or 3. A common variable grass in damp clearings, banks of streams, irrigated lands etc., 3500 ft. to sea-level. Flowers in favorable places, throughout the year. Specimens are from irrigated lands at Cienaga, near the sea, Sept. 10.

Full set, good. A few roots.

202 Specimen from damp, open ground by the river Don Diego, near the sea, May 12; common in this locality.

I had placed under this number (and may have sent to the New York Herbarium) some specimens which should have been referred to No. 204; to avoid possible confusion I now send fresh specimens of each. The two forms are sometimes associated, but seem to be distinguishable, at least as varieties.

202 Specimens from a damp clearing at Minca, 200 ft. Oct. 21. In this locality I found many plants 3 ft. high.

203 Panicum pilosum Sw.

Erect to 20 inches, Local in damp and sheltered places, banks or thickets, 1000 ft.-2500 ft.; I have found it principally in the region 20-40 miles east of Santa Marta. Flowers July-Dec. 8 specimens were collected at Cacagualito, 1800 ft. Aug. 7

Full set, good, most with roots.

203 Specimens from Minca, 2000 ft. Oct. 21; abundant in this locality, in damp clearings. It grows to 3 ft.

203 Specimens to substitute for the numbered set. These are better.

204. Panicum laxum Sw.

(var. of 203?) -Banks-of-the-Rio-Piedras Erect, to 2 ft. Irrigated clearing at Jiracasaca, 2500 ft. Sept. 27. Full set. No roots.

204 Wet place on rocks, bank of river below Masinga Vieja, July 24 . Erect or procumbent from rooting stock.

204 Specimen from banks of the River Manzanares near Masinga Vieja, 800 ft. July 24 ; on wet rocks. Open place in the forest.

205 (Panicum laxum Sw. (var. of 203?) Banks of the Rio Piedras, forest, 1800 ft., June 28. I have specimens collected by the same stream lower down, in Sept. In both localities the plants were much larger than the ordinary form of 203, with larger leaves, and decumbent from rooting stock. No specimens except for N.Y. & Carnegie.

205 Specimen collected 5 miles N.E. of Bonda, wet shores of a stream in the forest, Oct. 20.

206 Panicum laxum Sw. (= 202)
Erect or ascending from a creeping stock, 2 1/2 ft. Local in damp clearings, 1800-3000 ft. Specimens are from Minca, 200 ft. June 4.
Full set, most with roots.

206 Specimens from Minca, 2000 ft. Oct. 21. I have found the species only near this locality 1500-2500 ft.

207 (not named)
Erect or decumbent, 1-3 ft. Extreme top of the San Lorenzo Ridge, 7250 ft; not observed elsewhere. Specimens were collected Feb. 20 and I found a few flowers, in poor condition, Jan. 25.
6 poor specimens. Gramineae; not named.

208 Panicum fuscum Sw.
Erect, in small clumps, 1-2 1/2 ft. Common in irrigated or swampy land near the sea and on hills East of Cienaga, in dry forest, to 1000 ft., rare near Bonda. The specimens are from Cienaga Sept. 12. Flowers Aug.-Nov. The flowers, in all my specimens, are more or less purple. Full set. No roots.

208 Ascending-4ft. Clearing in shady place near river Don Diego May 15.

209 Panicum molle Sw.
Erect or decumbent, 2-3 ft. Common locally below 1500 ft. in open places in the dry forest, clearings and sheltered parts of the open lands. Flowers July-Nov. Variable in the down and, to some extent, in the shape of the leaves. Specimens were collected near Escalera de los Indios 1000 ft. Aug. 21.

209, Specimens from rocks by the seashore, 3 miles southwest of Gaira, Nov. 8.

209 ~~209~~ Specimens to add to the numbered sheets.

209 Specimens from open places in dry forest 5 miles East of Cienaga, 500 ft. Sept. 12. In these places the grass grew luxuriantly, often covering the ground; Some of the stems were 4 ft. long.
Full set; a few roots.

210. Specimen from the Minca estate 2300 ft. banks of a stream in the forest. Dec. 18, At this place the species was scandent, and 15 ft. high.

210 Isachne arundinacea (Sw.) G. Viseb.
Diffuse, ends of branches ascending, 5-8 ft. Forest, Las Partidas, 3500 ft., Jan. 28. I have a flowering specimen from the same locality collected Apr. 15. Full set.

211 Panicum molle Erect or ascending or decumbent from a trailing stock, generally 4-5 ft. high, but when supported by shrubbery it grows to 8 or 10 ft. Common locally on irrigated land and in boggy places below 1000 ft. Flowers principally July -Nov. Specimens were collected at Cienaga near sea-level, Sept. 9.

Full set. No roots.

212 Oplismenus brasiliensis Raddi:
Ascending, to 2 ft. from a rooting stock which is sometimes 3 ft. or more long. Local in damp forest, 500-3000 ft. Flowers Nov.-Jan. Specimens are from the Agua Dulce Road, 1500 ft. Dec. Full set, good.
Most with roots.

213 Leptochloa filiformis Beauv.

Erect, 1-2 1/2 ft., Local and rather rare in damp and sheltered or somewhat shady situations below 2500 ft. flowers may be found throughout the year. Varies greatly in the size and number of spikes in the panicle and in the leaves, narrow or broadish; the varieties look like distinct species but I can detect no essential differences, and the forms pass into each other. Specimens were collected near Masinga, 250 ft. Oct.

Full set, 100R or 12 with roots; very full and different varieties on one sheet. Several varieties sent to N.Y.

213 Variety from thickets on a dry hillside near Santa Marta, 150 ft. Sept. 17. I found this form growing quite abundantly in the arid hills; it looks so different from the others that I supposed it to be a distinct species; but it seems to be merely a stunted variety, due to the situation. I have similar ones from dry woods near Cienaga.

213 Variety from a damp clearing near Masinga, 250 ft. Aug., 31. This form is very rare.

214 Paspalum microstachyum Presl.

Erect or ascending 2-3 ft. Common locally- in clearings, open ravines etc. 2500 ft. to sea-level. On the lowlands it flowers principally Oct.-Nov.; in the mountains somewhat earlier. Specimens were collected near Bonda, 150 ft. Oct.

Fine, full set; 10 with roots.

214 Specimens with glabrate flowers. Bonda, Oct. I have noticed this character only in young plants.

214 var. Found principally in shady and damp places. The specimens were found at Bonda, Nov. Bonda, Sept. 22, Young of 214.

215 Paspalum paniculatum L.

215 Erect, 2-3 ft. A common species in clearings and damp, open places below 3000 ft. Flowers freely June-Jan. and more or less throughout the year. Specimens were collected near Masinga, 250 ft. Sept. Full set. 5-6 5 or 6 with roots.

215 Variety from Minca, 2000 ft Aug. 5, Some of the plants were 4 ft. high.

215 Don Amo June 28. Dupl.

215 (var.) Dup.

216 Kyllingia Peruviana Lam.

Local and rather rare on shady rocks and banks, by streams, exposed to freshets; I have not observed it above 1000 ft. Specimens is from Quebra Mojada, near Bonda, 150 ft. Sept. 21.

Full set., scant. No roots.

217 Rhynchospora armerioides Clarke.

Local on open lands 500 ft.-3000 ft., flowers Oct.-Dec. Specimens were collected 4 miles South of Masinga, 800 ft. Nov.

Good, full set.

218 Cyperus digitatus Roxb.

218 4-6 ft. high, the flowerhead 1 1/2-2 ft. broad. Local in swamps near sea-level, generally growing in the water. Specimen is from Cienaga, Sept. 11. Full set. 218-Dup.

219 Common-below Cyperus ferax Rich.

Common below 3000 ft. in damp clearings, and especially on boggy ground. Specimen was collected near Bonda 250 ft. July, 11. Grows to 3 ft. and the flower-head may be 10 inches broad, branching 2-3 times. Full set, 8 with roots.

- 219 Damp forest, side of ravine near river, Don Diego, Aug. 7.
- 219 Damp clearing near Masinga, July 11. Perhaps immature. Specimens of 219 not sent
- 220 Cyperus Ehrenbergianus Boeckl.
- 220 Local and rather rare, 1500-3000 ft., principally in shady places. Specimen is from Campo Alegre, 1800 ft., Sept. 22 Grows to 3-~~4~~¹/₂ ft. ^{3 1/2} 23 specimens; (about half immature) No roots except for N.Y. * ~~Carnegie.~~
- 220 Specimens to add to the numbered sheet.
- 220 3 additional 220 1. additional.
- 221 (not named)
Erect, 2-3 ft. Moderately common on open lands, 500-3000 ft. Flowers July-Dec. Specimen was collected near Escalera de Los Indios, 800 ft. Aug. 2. Full set with roots but specimens rather small.
- 221 Specimens to add to the numbered set.
- 222 Kyllingia pumila Mx. on irrigated land,
Common in boggy places, etc., below 3000 ft. Among tall grasses the stems may be 2-3 ft long.; but plants growing on wet rocks or in boggy pools often flower when a few inches high. Specimen was collected near Bonda, 250 ft., July 11.
Full set, but only a few good, good large roots; mostly dwarfed.
- 222 Specimens to add to the numbered sheets.
- 222. Variety from open, boggy land, Maria Thereza plantation, 2500 ft. - Oct. 16.
- 223 Cyperus simplex H.B.K.
Local in damp and generally shady situations, 3000 ft. to sea-level. Flowers principally July-Dec. Specimen is from the Onaca Road, 1200 ft. Sept. Full set, good, with roots.
- 224 Cyperus aurantiacus H.B.K.
Very common on open lands, especially on ridges, 500-3000 ft. and occasionally lower to sea-level. Flowers July-Jan. Specimens were collected near Escalera de Los Indios, 800 ft. Oct.
Full set, good with roots.
- 225 Cyperus oxylepis Nees.
Local near Cienaga on irrigated lands near sea-level, especially in irrigation ditches, where the roots are submerged. Collected Sept. 11.
Full set, some immature and only about 10 with roots.
No dissecting material.
(stet.)
- 226 Cyperus sphacelatus Rottb.
Moderately common in damp clearings at Jiracasaca, 2500 ft. Collected Sept. 28. 22 specimens mostly good and with roots.
- 227 Cyperus Surinamensis Rottb.
Common locally on damp or boggy open lands, 3000 ft. to sea-level. Flowers in favorable situations, throughout the year. Specimens was collected near Bonda, 250 ft. July 11. Full set; only 5 or 6 roots.
- 228
Occasional in damp places, clearings etc. below 1000 ft. (not observed above that level) Specimen was collected in a clearing near Bonda, 150 ft. Aug. 28. Full set, poor.
Same as 221 ?

229 Dichromena pubera Vahl.

Common locally on open lands and in clearings, 3000 ft. to sea-level. Flowers Jun⁶- Dec. Specimen was collected near Masinga, 250 ft. Aug. 8.

The floral are white at base except in young specimens. 23 specimens; not very good.

230 Stenophyllus Funckii (Steud.) Britton. (^{to Stenophyllus sp.} "corrected, label not sent.")

Moderately common on open lands below 2000 ft. Flowers Sept.-Dec. Specimens were collected near Masinga, 250 ft. Oct. 8.

Full set, scant.

231 Stenophyllus Funckii (Steud.) Britton

Local and rare in open lands, generally on sheltered banks, below 2000 ft. Flowers Aug.-Dec. Specimen was collected 4 miles south of Masinga, 800 ft. ~~Full set, scant.~~ Nov. 8. Full set, scant.

231 Specimens to add to the numbered sheets.

232 ^dAbilgaardia monostachya (L.) Vahl.

Local in dry situations in the open lands below 3000 ft. Flowers July-Dec. Specimens were collected near Masinga, 250 ft. Aug. 1. Good, full set.

Cyperus articulatus L.

233 Cyperus articulatus L. Erect, 4-5 ft. Cienaga in ditches and swampy pools near sea-level; moderately common.

Good, full set. No roots.

234, Scleria Liebmanni Steud.

Common on open hillsides, 800-4000 ft. Flowers Sept-Nov. Specimens were collected below Jiracasaca, 2000 ft. Sept. 30.

Full set, with roots.

235 Scleria hirtella ^{Sw.} ~~mod~~ Moderately common on open hillsides, 1500 -3000 ft. Flowers Sept-Dec. ^{as}

Called resfrio. The root is much used in an infusion, a remedy for fever; it is sold in the market at Santa Marta, and people go to the hills especially to obtain it.

Specimen with root is from Onaca, 2500 ft. Dec. the other is from Jiracasaca 2500 ft. Sept. 30. 235. Add to set.

235 Glabrate form.

Jiracasaca, Sept. 30. About as common as the hairy form, and found in the same localities. I have only one or two specimens of intermediate character.

nees

236 Scleria microcarpa Erect, at length nodding, to 3 ft. Observed only near Cienaga, on irrigated lands and in ditches, shady places near the sea. Collected Sept. 11. Full set, good, but no roots.

It is common in El Libano swamps.

237

Erect, 2½ ft. Local on open hillsides, ^{about 1500 ft.} Flowers Aug.-Oct. Specimens are from Jiracasaca, 2500 ft. Sept. 26.

Full set; roots with a few.

237 18 additional and specimens to add to the numbered sheets.

238 Eleocharis capitata (L.) R.Br. #238

Common locally below 3000 ft. on boggy ground by streams and pools, or on wet rocks on river-banks. Flowers throughout the year. The plants grow where they are exposed to freshets or are covered with water during heavy rains. Specimens were collected by a stream near Bonda, 250 ft. Feb. 3 Full set.

239 Fimbristylis spadicæ (L.) Vahl.

++29--

Note lost. Probably collected near Bonda, about Sept. 8 spec'ns, poor.
No roots.

240 Rhynchospora ^{comata}~~comata~~ Link? (cornata ?)

Erect, 3 ft. Local and somewhat rare, 6500-7500 ft., in scrubby ~~grow~~
growth. Specimen is from the San Lorenzo Ridge, 7000 ft. Jan. 25,
3 specimens.

241 Stenophyllus junciformis (A.B.K.) Britton.

Common on open lands, 500-3500 ft. Flowers principally July-Dec. Specimen is from Jiracasaca, 2500 ft. Sept. 29.

Full set, but the flowers in separate pieces, except a few.

242 Hemicarpha micrantha (Vahl. Britton.

Damp clearing near Masinga, 400 ft., Nov. 14. I have young specimens, apparently of this species, from Minca, 2000 ft. Aug. 1.

Full set.

243 Fimbristylis miliacea (Thunb.) Vahl.

243. Ascending or erect in herbage; stems sometimes 3 ft. long, common in boggy and on irrigated land near sea-level. Specimen is from Cienaga, Sept. 9.

Full set, but scant; stems cut short; no roots.

244 Common in boggy places below 3000 ft. Generally erect, 1-2½ ft. high, sometimes 3 or 4 ft.
Specimen was collected near Masinga, 250 ft. July 11.

Good, full set.

244 Damp rocks, open places in forest, river shore below Masinga Vieja.
July 24. Full set.

245 Eleocharis mutata R. et S.

245. Irrigation ditches, Eleocharis mutata R. et S. swampy pool, etc. below 1000 ft.; grows in the water, stem 3-angled, the sides nearly equal and somewhat concave. Specimens are from Cienaga, near sea-level. Sept. 9. 19 spec'ns. scant (2 each). No roots.

246 Fuirena umbellata Rottb. (var. of 247 ?) Erect, 2½ ft. Boggy place in a clearing near Masinga, 250 ft. Oct. 18. Not observed elsewhere.
N.B. None of my specimens of No. 247 have hairy leaves, sometimes there are a few hairs on the edges. Full set. No roots.

247 Fuirena umbellata Rottb.

Erect, 2½ ft. Common locally below 2000 ft. on the boggy shores of streams and in swamps, generally growing where the roots are submerged. Flowers more or less throughout the year. Specimen was collected near Bonda, 200 ft., Oct. 23

Full set, some rather immature. No roots.

248. Cassia reticulata Willd.

A small tree or tree-like shrub, 6-10 ft. Abundant locally on alluvial land banks of rivers near sea-level; blossoms Oct.-Nov. bright yellow. (Specimens are from near Mamatoca and from Guaira)

Full set.

248 19 additional, and specimens to add to the numbered sheets.

249.

Cassia biflora L. A shrub 6-8 ft.

Common in dry forest and thickets, especially near sea level. Flowers Oct.-Nov. (Specimens are from the dry, hot plains, 5 miles south of Guaira, Nov. 9) Full set; 15 with fruits.

249-249 Dup.

- Tree, 35 ft. Quebra Concha April 28 Few (young) leaves. Fl. deep rosy.
Base of standard green.
- 250 Cassia oxyphylla Kunth.
Shrub or small tree.. 5-8 ft. Occasional in dry forest and thickets below 1000 ft. Blossoms Oct.-Dec. (Specimens are from near Bonda, Oct Full set; no fruit.
- 250 Specimens to add to the numbered sheets.
- 251 Cassia oxyphylla Kunth (= 250)
Shrub or small tree 8-10 ft. Occasional in dry forest, ravines and hillsides below 500 ft., 5 miles east of Cienaga, Sept. 10, Not observed elsewhere. 24 specimens, poor.
- 251 Dissecting Material. I let this number stand provisionally, until the legume can be examined; but probably the form is only a variety of No. 250. It has somewhat larger and deeper colored flowers, and generally broader leaflets; and the zigzag character of the branchlets is more pronounced. The leaves, in their natural state, are turned backward-i.e. away from the flowers, giving the branch a curiously reversed appearance; this character is also found in No. 250, but in a less marked degree; Nos. 703 and 700 never or rarely show these reversed leaves.
- 252 Crotalaria incana L. (= 72)
Shrub 3 ft. One plant only seen on campo land, edge of forest, 2000 ft. near the road from Bonda to Cacagualitu. Aug. 30.
No specimens except one for N.Y. & Carnegie. Occurs at Las Nubes.
- ~~(This has no number but comes immediately after 252) ---
Full set; fruits sent to N.Y. and Carnegie.~~
- 253 Cassia inaequilatera Balb. A shrub or tree, 10-15 ft. Occasional on the edge of forest and campo 1000-5000 ft. but generally above 2000 ft. Blossoms Sept.-Dec. 1 Specimens are from Jiracasaca, Sept. 29)
Full set. No fruits. A few.
- 253 Add to the numbered sheets.
- 254 Cracca Schottii Vail (Vahl?)
254. Suffruticose, Upright, 2-3 ft. Flower rosy. Two or three plants only observed in a clearing at Cienaga, irrigated land near the sea. Sept. 12
16 specimens.
- 254 Dissecting Material. This specimen was collected in an irrigated clearing near Santa Marta, Dec. 8, a single plant was found there. I have not seen the species elsewhere except at Cienaga.
- 255 Crotalaria anagyroides H.B.K. = 2248
Shrub 5-8 ft. Occasional along edges of forest and in ravines of campo land, 2000 -5000 ft. Specimens are from Jiracasaca. 2500 ft. Sept. 29 26 specimens.
- 255 (already sent in) Variety from open ridge, Sierra del Libano, 5500 ft. Jan. 21. All the plants from this locality (the highest in which I have observed the species) have blunt leaflets. Flowers observed here Jan-May. Flower bright yellow.
- 256 Cassia bicapsularis L. (= 257, 699)
A tree, 15-20 ft. Common on dry lands near the sea. Flowers Sept.-Oct. (specimens are from Cienaga. Sept. 9) No specimens except (poor) for N.Y. and Carnegie.

Probably same as 255 which is mountain sp. Fl. bright yellow. Open shore river of river near mount'n, Don Diego, May 18 Shrub, 4 ft.

- 257 Cassia bicapsularis L. (= 256)
 A tree or shrub 5-15 ft. Common on dry lands close to the sea. Perhaps a variety of No. 256 but the number of leaflets is ⁸⁻¹⁰ less, and they are always much thickened and blunt. Flowers Sept.-Oct. (specimens are from Santa Marta, Oct. 29) No specimens except for N.Y. & Carnegie (poor; set eaten.)
- 258 Haematoxylon boreale S. Wats.
 A spreading tree, 15-20 ft. Common locally on dry open lands and campo below 1000 ft. Flowers Sept.-Nov. (Small specimen is from Santa Marta, dry hill near the sea, Sept. 16; the others from Campo-Alegre, 5 m. S. of Mamatoca, Nov. Full set with fruit.)
- 258 Dissecting Material and fruit. The tree flowers freely Jan.-Feb. and the leaves are deciduous at that time.
- 259 Myrospermum frutescens Jacq. (= 701) Leguminosae.
 A tree, 25 ft. Specimen from Ge Cinto, on the coast 25 miles east of Santa Marta, March 23. Base of standard rosy as in No. 701 (portion of bark is included) I retain this number provisionally until the fruit is collected. Probably however, this is the same as 701, the plant growing to a large size near the seashore, while inland it is generally a shrub. (Already sent it) (~~N.B. - I don't see it. Mrs. H. H. S.~~)
- 260 Cajanus cajan (L.) Millsp.
 Tree-8-10 ft. Cultivated. Naturalized, sparingly in clearings below 3000 ft. (e.g. at Onaca) Flowers Sept.-Dec.-Feb. Full set. rather scant and not very good.
- 261 Poeppigia procera Presl.
 A large forest tree, 40-75 ft. or more. Occasional below 1500 ft. Blossoms July-Nov. (The flowering specimen is from near Bonda, 150 ft July 10; the fruited ones from near Mamatoca Oct.)
 Full set with fruit; not free flowered.
- 261 Specimens to work in with the numbered set.
- 259 Myrospermum frutescens Jacq.
 Tree or shrub, 5-20 ft. Pretty common on hot, dry hills near the sea, and occasional in campo thickets near sea-level to 10 miles inland. Flowers white, Nov.-Dec. The flowering plant is leafless but others bearing leaves are found at the same season. Specimen from Santa Marta, Nov. 5. Full set, pretty good but leaves might be improved.
- 262 Diphyssa sennoides Benth. (can't make out. "H, H. S.")
 A tree, 15-25 ft. Common on hot, dry lands near the coast, and found occasionally in dry forest several miles inland. Flowers July-Nov. (Specimens are from near Santa Marta and along the line of rail road southward.)
 26 specimens; leaves much broken. A few fruits.
- 263 Guaiacum officinale L.
 A compact, thick-leaved tree, 15-20 ft. Common on the hot, dry plains and near the the seashore between Guaira and Papare. Flowers in Sept. The flowers are blue or white, perhaps changing in color. (Sept. 16) 14 specimens, scant.
- 264 Machaerium acaciifolium Mart. ex Benth. 15 ft.
 A shrub with long, diffuse branches,, Occasional in dry thickets, below 1000 ft. Flowers Sept.-Nov. purple. (Specimens are from near Masinga, Oct. 26. Full set; slightly injured, in part, by pests. No fruits except for N.Y. and Carnegie. 25 sp. 3 duplicates.

264 Fruit. This shrub grows to 20 ft., the branches generally arching over, sometimes supported by neighboring plants so as to appear scandent.

265 Poinciana pulcherrima L.
A shrub or small tree 5-10 ft. Occasional in clearings and waste places below 1000 ft. The species is possibly introduced, as it is cultivated for ornament, but if so, it is fully naturalized. Flowers Oct.-Aug.-Oct. (Specimens are from a clearing near Santa Marta, Sept. 14. Full set. some with fruits.

265 Dup.
266, Meibomia angustifolia (H.B.K.) Kuntze. (= 2660)
Upright, with few or no branches, 1-3 ft. Pretty common locally on campo lands, 500-300 ft. Flowers Sept.-Nov. Crimson. (Specimens are from campo S. of Masinga, 800 ft. Oct.) 26 specimens.

267 Meibomia mollis Vahl. ^{Kuntze} Upright, branching, 4-5 ft. Flowers in Nov. Local and rather rare, 1000 ft. to sea level. Specimen is from Don Jaco, near the sea, Nov. 8. Mostly good. 26 specimens; all with fruit.

~~268, Meibomia mollis (Vahl, 3-4-ft., high.~~

268 Meibomia spiralis (Sw.) Kuntze 3-4 ft. high;
branching and more or less diffuse. Flowers deep rosy, Blossoms in Nov. Locally common in dry, open places below 500 ft. and especially near the sea. (Specimen is from near Papare, Nov. 6)
26 specimens, only part have fruit. Some slightly injured by pests.

268 Add to the numbered sheets.

268 var. Spreading, 1 ft. Lower leaves rounded, only one root found, thick-
et on a dry hill near the sea, 4 miles S. of Guaira, Nov. 8,
2 specimens.

268 var. Dissecting Material. I leave this here provisionally, as I have only seen one plant; but I am inclined to think that the form will prove to be distinct.
(Sw.) Kuntze.

269 Meibomia scorpiurus Trailing with ascending branches, Flower rosy. Local on campo lands and clearings, 1500 ft. to sea-level. Blossoms Oct.-Nov. In the irrigated lands near Cienaga I found flower and fruit early in Sept. Specimens from near Masinga, Oct.
26 specimens (fruited) Good.

270 Not named.
Specimen from Bonda, 150 ft. Oct. 22, The plants, when well grown, branch freely and are sometimes spreading or with the ends of the branches resting on the ground.

270
Upright, with few or no branches 2-4 ft. Common in forest on low land, 5 miles east of Cienaga, Sept. 9; not observed elsewhere. Flower yellow. The fresh leaf is light green, downy in appearance.
26 specimens.

271 Indigofera Anil L. (= #68)
Shrub 4-8 ft. Common locally in clearings and waste lands below 2500 ft. Blossoms Aug.-Oct. The specimens are from near Bonda. The plant is common near the seashore at Cienaga.
Full set, but mostly without fruit.

271 Variety with many leaflets.

271 Variety A shrub 4 ft. high. Dry forest, hillside, 5 miles East of Cienaga, 500 ft. Sept. 9 Common in this locality.

271 Dissecting Material. The plant is commonly 4-6 ft. high. I cannot find that it is now used here for making indigo, though it is known to yield the dye. It occurs commonly in clearings, but also in dry forest several miles inland from Cienaga and not in the vicinity of cultivated land.

272. Indigofera subulata Vahl.

A diffuse shrub with long, vine-like branches, 5-6 ft. Common locally in thickets, shady or open places, below 1500 ft. Flowers 8 Sept.-Nov. (specimens are from plains near Don Jaco, Nov. Good full set of flowers but lacking fruit.

272 var. near Cienaga, Sept. 13

273 Aeschynomene rudis Benth.

Upright with few branches, 3-4 ft. Local and rather rare on irrigated lands near sea-level, at Cienaga (Specimen collected Sept. 9,) Flowers yellow. 26 Fruited specimens, slightly eaten.

274. Cassia mimosoides L.

Shrubby 2-4 ft. Local in open places, campo, clearings etc. below 3000 ft. Flowers Sept.-Nov. (Specimens are from a ravine 4 miles N. of Bonda, Nov. 5 Full set, scant; only a few have fruit. Vog.

275 Cassia stenocarpa. Suffruticose, upright, branching, 2-4 ft. Local in clearings and on campo below 2000 ft. Flowers Oct.-Nov. 1 (These specimens are from near Masinga, Oct. 25 specimens and 6 dupl.

*

275 A dwarf variety, occasional on campo near Masinga. Collected Nov. 2 Full set with others.

275 Fruits. Campo road from Bonda to Cacagualito, 1000 ft. Dec. 22.

276. Cassia pilosa L. Suffruticose, upright, with few or no branches, 2-3 ft. Local in campo thickets and along the edge of forest, below 2000 ft. Flowers Oct.-Nov. Fruit Dec. (Specimens are from near Masinga, campo close to forest, 500 ft. Good, full set.

276 Specimens to add to the numbered sheets.

277 Meibomia barbata (Sw.) Kuntze. Small-leaved form. the common one on campo below 500 ft. Does not flower freely until the latter part of Oct. and Nov. Generally decumbent, the ends of branches ascending, 8-20 inches.

277 Suffruticose upright, ascending or trailing, compact or diffuse. A common campo plant from 5000 ft. to sea-level. Flowers Sept.-Dec. earlier at higher localities.

This is the average form, campo 500-1500 ft. sometimes grows to 3 ft. Specimens from near Masinga, 500 ft. 26 spec. Good.

277 Form from Onaca 2500 ft. Campo Dec. 20, upright, 15 inches.

277 Variety from Campo at Campo Alegre, 1500 -2000 ft. Sept. 20 Compact, not more than 1 ft. high. Flowers earlier than the form on the lower campo.

* 275a.) Cassia patellaria DC. Labels not sent out.
275b.)

- 278 Benthamantha Caribaea (Jacq.) Kuntze. (=706) ---34--
278. Shrub, 2-4 ft. Occasional in dry forest and thickets, below 1000 ft. and, especially near the sea. Flowers Sept.-Nov. light yellow. Specimens are from near Bonda, Oct. Full set.
- 278 Fruit, Bonda, 150 ft. Nov. 10 and Jan. 4 The flower of this species is very pale yellow or creamy, sometimes with a pink tinge.
- 278 Specimens to add to the numbered sheets.
- 278 Specimens to work in with the numbered sheets.
- 279 Cracca cinerea (L.) Morong. =55, 704
Prostrate or decumbent, 6 inches to 2 ft. Moderately common on open campo land, below 3000 ft. Flowers July-Dec. mostly freely, Oct.-Nov. (Specimens are from near Masinga, 300 ft. Nov.)
Good, full set, all with fruits.
- 279 Dissecting Material (collected near Bonda, Nov. 22 The plant is spreading in growth, but seldom prostrate, sometimes ascending or erect. Flower purplish.
- 280 Nissolia fruticosa Jacq. Rare in dry woods below 1500 ft. and in ravines near water. A vine, 25-30 ft. or higher. Flowers yellow. Oct.-Nov. 1 specimen is from a ravine 5 miles N. of Bonda, near sea-level. Full set, No fruits, except for N.Y. and Carnegie.
- 280 Dup.
- 281 Bradburya hastata (Benth.)
Occasional in thickets and dry forest below 1000 ft. Twining, 5-8 ft. Flowers Oct. Nov. Flower whitish. (Specimen is from near Bonda.)
Full set, Quite good.
282. Calapogonium orthocarpum Urban.
Twiner 6 ft. Observed only in thickets near Masinga, about 400 ft. Nov. 29. Full set.
- Dissecting Material The species is locally common in clearings and thickets near Bonda and Masinga 150-500 ft. Flowers Nov. Dec. blue. On open ground the plants are often trailing and rooting. Twining plant grow to 5 or 6 ft.
- 283 Galactia tenuiflora Willd. W. et U.
Twining, 6 ft. Rare near sea-level. Flower rose. The specimens are from Cienaga, Sept. 12. Also observed in a dry ravine, near sea-level, 5 miles N. of Bonda, Oct. 19.
Full fruit set, with fruit, scant and poor.
- 283 Dissecting Material I found this species growing abundantly along the borders of swampy land, 3 miles south of Mamatoca, 100 ft. flowering in March. It is rarely over 3 or 4 ft. high.
- 284 Galactia tenuiflora (Willd.) W. et U.
Twining, 5-10 ft. Occasional in thickets and dry forest, below 1000 ft. Flowers in Oct., white. (Specimens from near Bonda; the fruit seen from same region, Dec. 22.
23 specimens, 19 with fruit. Flowers scant and injured by pests.

285 . Galactia longiflora Cav. Twining, 10 ft. Local in wooded ravines below 1000 ft., in the vicinity of Cienaga, Papare etc. Flowers Sept.-Nov., bright rosy. (Specimens are from 8 miles east of Cienaga, Sept. 10; the fruit from a ravine near Don Ame Jaco, Nov. Full set, some poor.)

286 Cow itch. (not named) Occasional in forest below 3000 ft. A Twiner, 40-50 ft. Flowers slate-colored, Aug.-Nov. The flower clusters are pendent the stem often 4-5 inches long, with stinging hairs, ripening in Dec. and Jan. (specimens are from damp forest near Masinga Vieja, 1000 ft. Aug. 27) The use of the stinging hairs of this species are a remedy for worms as well known here.) Full st, with fruits.

* See below

287. Dissecting Material. The fresh flowers are deep, dull purple reddish, changing to dull purple before they wilt. ----- reddish,

287 Dupl.

288 Clitoria glycinoides D/C. Trailing and twining among grasses on open campo road from Bonda to Cacagualito, Nov. 10 (fruited specimen same locality, Dec. 23.) Abundant over a small portion of the campo; not observed elsewhere. Flowers creamy. Good, full set, but no fruits except for N.Y.

289 Dissecting Material. Probably a color variety of No. 290, Pretty common, 5000-3--- ft. but plants are rare below 1500 ft. Full set, much broken and flowers scant. No fruits.

289 Canavalia gladiata (Lam.) DC (= 290) Occasional in woods and thickets, especially near streams, 2000 - 3000 ft., at Jiracasaca on the road to Las Nubes etc. Twining, 6-8 ft. Flowers deep rosy. Flowers Sept.-Dec. (specimens are from Jiracasaca, 2500 ft. Sept. 30

290 Canavalia gladiata (Lam.) DC (= 289) Twining, 6 ft. Local in dry woods and thickets below 1000 ft. Flower Oct.-Nov., white, sometimes with a rosy tinge, but never deep rosy, and without blotches (specimen is from a dry ravine 3 miles N. of Bonda, Oct.) Full set, broken; no fruit.

291 Clitoria ternatea. L. Twining, 6 ft. Flower rich purplish blue. Observed only in a clearing, irrigated land, near sea, Cienaga, Sept. 6-13. (The plant was abundant in thickets near a ranch, and possibly may have run wild from cultivated ones.) Full set, good, About 13 or 14 with fruits.

291 (already sent in) Specimen from Cacagualito, 1600 ft. Nov. 15. I have collected the species in the Agua Dulce Road, 200 ft. Feb. 2 It is certainly a wild plant and I cannot find that it is ever cultivated, though its showy flowers would adapt it for gardens. As I have found it only in or near clearings, it may be derived from old cultivated stock. It grows on damp or boggy ground. The petals are rich purple blue, creamy or white at the base.

292 Canavalia obtusifolia (Lam.) DC. Trailing over sands and on damp ground, seashore, Cienaga, Sept. 10, abundant in one place, observed also on seashore at Don Jaco, Oct. Flower deep rosy. The plant is often partly buried in the sand. Full set, fair.

293 Acacia polyphylla DC. Tree, 40-70 ft. Common in dry forest below 2500 ft. Flowers Aug.-Jan. (The specimens are from near Mamatoca, Sept. 24.) 200 ft. above sea-level. Full set, no fruit.

* * Label for 287 on page 38.

- 294 not named.
Tree, 40-50 ft. Occasionally in forest below 500 ft. Flowers in Sept. (specimens is from hills below 500 ft. 5 miles east of Cienaga, Sept. 11.
Full set; no fruit.
- 295 Acacia hirsuta ^{Sehl.} A tree, 8-20 ft. Occasional on edge of forest, 2000-5000 ft. at Jiracasaca, Las Nubes etc. Flowers Sept.-Oct. (specimen is from the Ce Cuaco Mountain, 4500 ft. Sept. 27
25 specimens ;with fruit(?)
- 296 Calliandra laxa Benth.(?)
A tree, 20 ft. Rare in dry forest near Bonda(below 500 ft.)
Flowers Aug.-Sept. (specimens collected Sept. 1 and Aug. 30)
Full set; fruit sent to N.Y. and Carnegie.
- 296 Fruit Bonda, 150 ft. Jan. 17
- 297 Acacia tortuosa Willd. Tree, 10-25 ft. Common :on hot dry lands near the coast. Blossoms Aug.-Oct. (specimen is from Cienaga, Sept. 7)
Full set.
- 297 Tree, 20 ft. Plains 3 miles to 5 miles S. of Guaiya-Common, July 22
19 specimens.
- 297 26 additional specimens.
- 298 , A shrub, Neptunia plana Benth. near coast. Sept.
Often without branches. Flowers pale yellow. Occasional on low, wet lands near the coast, Aug.-Oct. (The specimens are from open places at Cienaga, Sept. 8.) 26 specimens ;with fruit.
- 299, Mimosa asperata ^{L.} A shrub, 3-5 ft. Common locally on swampy land or by streama, near sea-level. Blossoms Sept.-Nov. pink. (The flowering specimen is from Santa Marta, Sept. 15; the (young) fruit from near Papare, Nov.) 26 specimens ; no fruit except young. (=2246)

No. 2246 (see #299) is different, according to Rusby and is the true asperata. This has not been named; no label sent out for this.

X 26 specimens . Part with fruit, good.

- 302 not named
A tree, 15-25 ft. Common on hot, dry lands near the coast. Flowers Aug- Oct. (specimens are from Santa Marta, Sept. 15) Flower white.
Full set; no fruit.
- 303 Piptadenia flava Benth.
A high shrub or small tree, 15 ft. One tree only observed in dry forest near the coast at Playa Brava, Nov. 2. Full set; no fruit.
- 304, Piptadenia communis Benth. =306
Tree, 15 -20 ft. Occasional in thickets, hot, dry hills near the coast
Flowers Sept.-Oct. pale, greenish yellow. (Specimens are from Santa Marta, Sept. 15.) Full set.
- 305 No label; no specimens.

- 294 not named.
Tree, 40-50 ft. Occasionally in forest below 500 ft. Flowers in Sept. (specimen is from hills below 500 ft. 5 miles east of Cienaga, Sept. 11.
Full set; no fruit.
- 295 Acacia hirsuta ^{Schl.} A tree, 8-20 ft. Occasional on edge of forest, 2000-5000 ft. at Jiracasaca, Las Nubes etc. Flowers Sept.-Oct. (specimen is from the Ce Cuaco Mountain, 4500 ft. Sept. 27
25 specimens ;with fruit(?)
- 296 Calliandra laxa Benth.(?)
A tree, 20 ft. Rare in dry forest near Bonda(below 500 ft.)
Flowers Aug.-Sept. (specimens collected Sept. 1 and Aug. 30)
Full set; fruit sent to N.Y. and Carnegie.
- 296 Fruit Bonda, 150 ft. Jan. 17
- 297 Acacia tortuosa Willd. Tree, 10-25 ft. Common :on hot dry lands near the coast. Blossoms Aug.-Oct. (specimen is from Cienaga, Sept. 7)
Full set.
- 297 Tree, 20 ft. Plains 3 miles to 5 miles S. of Guaiya-Common, July 22
19 specimens.
- 297 26 additional specimens.
- 298 , A shrub, Neptunia plana Benth. near coast. Sept.
Often without branches. Flowers pale yellow. Occasional on low, wet lands near the coast, Aug.-Oct. (The specimens are from open places at Cienaga, Sept. 3.) 26 specimens ;with fruit.
- 299, Mimosa asperata ^{L.} A shrub, 3-5 ft. Common locally on swampy land or by streams, near sea-level. Blossoms Sept.-Nov. pink. (The flowering specimen is from Santa Marta, Sept. 15; the (young) fruit from near Papare, Nov.) 26 specimens ; no fruit except young. (=2246)
- 300 Desmanthus depressus H.& B.
Shrub, 2-3 ft. Flower white. Occasional on low, wet lands near the coast, at Cienaga Sept. 7-12 26 specimens, -sent. about half with fruit.
300 specimens to add to the numbered sheets.
- 300 Specimen from arid, rocky hill overlooking the sea at Playa Brava, Oct. 26. This does not seem to be distinguishable in any way from the plants found in wet ground at Cienaga.
- 301 Mimosa flaviseta Benth.
A shrub, generally upright, sometimes decumbent, 2-3 ft. Locally common in damp clearings and in open ravines below 1000 ft. Flowers Oct - Nov. (specimens are from near Bonda. Pink
X 26 specimens . Part with fruit, good.
- 302 not named
A tree, 15-25 ft. Common on hot, dry lands near the coast. Flowers Aug- Oct. (specimens are from Santa Marta, Sept. 15) Flower white.
Full set; no fruit.
- 303 Piptadenia flava Benth.
A high shrub or small tree, 15 ft. One tree only observed in dry forest near the coast at Playa Brava, Nov. 2. Full set; no fruit.
- 304, Piptadenia communis Benth. =306
Tree, 15 -20 ft. Occasional in thickets, hot, dry hills near the coast
Flowers Sept.-Oct. pale, greenish yellow. (Specimens are from Santa Marta, Sept. 15.) Full set.
- 305 No label; no specimens.

306 (same as #304 ?) Piptadenia communis
 Tree, 30 ft. Flowers Sept.-Nov. Two or three of this tree were found on the edge of forest, damp hillside, about 2000 ft. road from Bonda to Cacagualito. Specimens collected in Sept. I give this a number on account of the locality, very different from that which #304 was collected. Flowers pale, greenish yellow.
 Flowers in bud or not out well. Full set.

307 Pithecolobium dulce =26
 A shrub or small tree, with scattered sprayey branches, 10-20 ft. Occasional in dry woods and thickets near Bonda. Blossoms at intervals from Aug. to Dec., but most freely in Nov., at the end of the rainy season; the same tree blossoms two or three times. Stamens generally dark red, sometimes paler. Spines few or none except on large branches. 26 sp. Fruit for N.Y. & Carnegie.

308 Same as 307
 308. A tree, 8-15 ft. with long, slender branches and few spines. The commonest form in the dry forest about Bonda (better 500 ft. often near streams. Flowers Aug.-Dec., at intervals, most freely in Oct. 26 specimens. Fruit for N.Y. & Carnegie.

309 Pithecolobium excelsum Mart.?
 Thickets on dry, rocky hills at Santa Marta, and dry hills and plains from Guaira to Cienaga, never far from the sea. A tree, 15-20 ft. The flowering specimens are from Santa Marta, Sept. 15. The fruit from dry plain, 5 miles South of Guaira, Nov. 8
 13 specimens.

309a Pithecolobium diversifolium Benth, 100ft. Sept. (x 697)
 310 Tree, 40 ft. Damp valley near a stream, forest road to Las Nubes, 3000 ft. Dec. 3. only one observed. 11 specimens, mostly in bud.
 (Name changed from Inga capitata Desv. to Inga eriocephala Steud.)

311 Pithecolobium saman Benth.
 A spreading tree, 50 ft. or more high. Occasional below 1000 ft., especially near streams, at Cienaga, Bonda etc.
~~Full set, apparently good, near Cienaga, Sept. 12, N.Y. and Carnegie.~~

311 Pithecolobium saman Benth.
 A spreading tree, 50 ft. or more high. Occasional below 1000 ft, especially near streams, at Cienaga, Bonda, etc. Specimen is from near Cienaga, Sept. 12. Full set, pretty good; no fruits except for N.Y. and Carnegie.

311 (already sent in) Specimens collected near Bonda, 150 ft; the flowers Apr. 32, fruit, Jan. 3 The tree is pretty common in this region, generally near streams; it grows to 80 ft. or more. Flowers freely Feb.-Apr. and again about Sept., and occasionally flowers may be found at other times. Stamens reddish.

312. Morinda Roioc L.
 A shrub to 15 ft. with slender branches which are more or less vine like, supported by neighboring plants. Rare in the dry forest region below 500 ft. in somewhat damp and shady situations, Apparently it flowers throughout the year, corolla white. Specimens were collected 4 miles N. of Bonda, about 150 ft., in a dry ravine, Oct. 19. Full set.

313, (not named.) Erect, 8-20 inches. Local in damp forest, 500-1500 ft. Flowers Nov.-Dec. white. Specimen was collected at Masinga Vieja, about 500 ft. Nov. 29. Full set.

287. Phaseolus vestitus Hook.

Twining, 5-6 ft. Local in thickets, dry woods, edge of campo etc below 2000 ft. especially in dry, rocky places. Flowers Nov.-Dec. d dull red. (specimens are from near Masinga Vieja, about 1000 ft. Nov. 25; the fruited one from a dry rocky hill 5 miles South of Guaira, Nov. 2. Full set; with fruits.

315 Byrsomina Grassifolia (L.) H.B.K.

A low, gnarled tree, to 20 ft. sometimes a shrub. Open lands below 2500 ft.; common. Flowers May-Aug. This is one of the few trees belonging properly to the open, grass lands and growing well away from the shelter of the forest. Specimens collected near Masinga, 2500 ft. July, Petals orange yellow. Full set.

314

A shrub, 5-12 ft., sometimes a small tree. Common along the borders of dry forest and, in thickets below 1000 ft. Flowers June-Oct. white. Specimens were collected near Masinga, 250 ft. the flowers in Aug., the fruit Nov. 8. Full set. Fruits with all.

314 Specimens to work in with the numbered set.

(West?)

316 Byrsomina Wostmanni Benth. (var. of 315?) A tree to 20 or 25 ft. Less common than No. 315, growing principally on the open lands below 1000 ft. The two forms are associated but I have never found intermediate ones. Specimens collected 5 miles east of Bonda, 400 ft. Aug. 4.

317 Mapourea micrantha H.B.K. A shrub or small tree, to 10 or 12 ft. Rare in mountain forest, 1000-2000 ft. Specimens are from near Minca, 2000 ft. June 3. Full set, fine.

317 June 18 shrub, 6-7 ft. Dup. Don Amo.

Calavasa June 3, Fl. white.

318 ~~A shrub, Calavasa, 500 ft., forest, Dec. 28, Flower white, 7 specimens.~~
~~Rondeletia~~

318 . A shrub. Psychotria rufescens H.B.K.

Calavasa, 500 ft. forest, Dec. 28, Flower white. 7 specimens.

319 ~~(var. of 320?)~~ Rondeletia Purdici Hook.

319 Rondeletia Purdici Hook. (var. of 320?)

A slender shrub with long, vine-like branches, 15 ft. Rare in ravines in the dry forest region below 500 ft. The few plants which I have observed were readily distinguishable by their habit, slender branches ~~slender habits~~ and elongate leaves from No. 320. The leaves commonly fall off in drying which is not the case with No. 320. Specimens were collected near Bonda, 150 ft. the flowers Aug. 1, the fruit in Sept.

320 Rondeletia Purdici Hook. A shrubby tree, to 10, or 12 ft. Common in dry forest and thickets below 2000 ft. Blossoms freely May-Nov., and more or less during the rest of the year. Flowers white. Specimens were collected near Masinga, 250 ft., July 17.
Full set, not very good.

321 Erect or ascending, to 2 ft. Local on open grass lands, 2000-5000 ft. Flower white. Specimens are from the Cuaco Mountain, 4500 ft. Sept. 27
Full set; does not show fruit well.

322 Spermacoce tenuior L. -84

Erect or ascending (if supported by herbage) or procumbent and diffuse, 2-3 ft. Local in open swamps or irrigated lands near the sea-level, at Cienaga, Sept. 6. Flower white. Full set.

323 Polyprum procumbens L.

Observed only in three or four places on open, grassy hillsides near forest or in clearings, always on damp ground, 250-1500 ft. Flowers in Nov., white. The fruited specimen is from Campo Alegre, 1500 ft. Nov. 19; the other from a clearing near Masinga, Nov. 8, 300 ft.

In the localities where I have found it, it was pretty common over a limited space. Very full set; fine.

324 Diodia teres Walt. (= 82)

Very rare. Observed only in one place, damp ground on open grass land 3 miles east of Bonda, about 4000 ft. Collected Aug. 30. Flower small, white. Full set, scant (2 or 3 roots) for each specimen).

324 Specimens to add to the numbered set.

-324--Specimens-collected-3-miles

324 Specimens collected 3 miles east of Bonda, in the same place where the original small specimens were obtained. Sept. 30. The species is common over a limited area, Sept.-Oct. The flowers is smaller than in allied forms. No. 1731 is distinct

325 Tournefortia volubilis L. A diffuse shrub to 6 or 7 ft. Occasional in thickets near seashore level. Cienaga, Sept. 10.
Full set, scant.

326 (see 624) Eupatorium albescens Gardn.

Upright, branching towards the top, 5 or 6 ft. Common locally, 2000-3000 ft. on campo land, especially near the borders of forest. Flowers in Sept. (specimens is from Jiracasaca 2500 ft. Sept. 29.

326 (in dissecting material label) No. 624 is the same, more mature, and the plant had a more spreading growth. I have put both under this number and suppressed No. 624.

327 Cleibadium asperum DC. (= 355)

shrubby (or suffruticose?) Upright, 5-7 ft. Local at about 2500 ft. The specimens are from Jiracasaca, 2500 ft., in a clearing, Sept. 30.

327 (already sent in) Specimens collected near Minca, 2000 ft. June 1; brought in by a native collector who described the plant as a twining shrub 15 ft. high and this seems to be borne out by the specimens. The plants from which I collected the specimens sent in before were not twining, but this may have been because they were small. No. 335 is never scandent.

I can find no clear distinction between this and No. 335 yet the characters are constant in a large number of specimens from different localities, and the forms seem worth distinguishing as a variety at least. Good, full set.

327 (?) A form which seems intermediate between this and 335. I have only half a dozen specimens collected, I believe, at Campo Alegre, 2000 ft.

328. Cordia cylindrostachys R. et S.

A shrub, to 6 or 7 ft. common locally in thickets and waste places below 2500 ft. Flowers June-Nov. (The specimens were from near Bonda, July and Aug.) Full set, fair.

328. A variety from Cienaga, Sept., 10, all my Cienaga specimens have sharp-pointed leaves. Those collected elsewhere have the leaves bluntish.

328 A variety or monstrosity growing in a wet and shady place, near Bonda, Aug.

329. Aegiphia Martinicensis L. 869 (see 868) --40--
A shrubby tree, 10 ft. Rare in damp forest, 500-1500ft. The specimens were collected 5 miles east of Bonda, in forest near a stream, Aug. 20. 18 specimens, but less than half with open flowers.
- 330 Aegiphila sp. (not sent out.)
A shrub or dwarf tree, to 6 ft. A single plant observed in a clearing at Cacagualito, 1500 ft. Aug. 9.
- 330 (already sent in) Specimens from thickets by the seashore, near the mouth of the River Buritaca, Sept. 26; common in this locality, attaining a height of 10 or 12 ft. The corolla is yellowish white; berry red. Full set.
- 331 Tournefortia hirsutissima L.
A diffuse, more or less trailing shrub, the ends of branches erect, 4-6 ft. Occasional in thickets, waste places etc. below 1500 ft. Flowers May-Oct. (The specimens are from Bonda; the flowering one Sept. the fruit June 20). 19 specimens, some poor.
332. Bredemeyera floribunda Willd.
A shrubby tree with long, drooping or subscandent branches, to 20 ft. Occasional in thickets and along the edge of forest below 1500 ft. Flowers Sept. 25-Nov. 10, yellowish white. (specimen from near Masinga, 500 ft. Oct. 22. Full set, fine. Playa Brava Feb. 4
- 333 Tournefortia velutina H.B.K.
333. A shrub with long, more or less diffuse branches, 5 or 6 ft. Rare in dry forest and thickets below 1500 ft. Flowers June-Oct (specimens are from Bonda, Aug.) Full set.
333. (Already sent in) Specimens from the seashore at Playa Brava, Apr. 4. The species is common near the seashore, in many places. The slender branches are often scandent, but when growing on the sands the species forms a compact shrub. It is rather rare in dry situations inland. Flowers more or less throughout the year.
- 334 Cordia ferruginea R. & S.
A shrub, to 8 ft. Occasional at Cienaga. thickets on plains near the sea, collected Sept. 9 Different plants vary in the leaves, but my series shows a regular gradation from irregularly serrate to nearly entire forms. Full set, fair.
- 335 "Probably Clibadium asperum, listed 355 (q.v.) 355 was sent as C. asp.-(cant make out the rest.)" by clerical error.
A shrub, to 6 ft. Common in campo thickets, in clearings etc. below 2500 ft. Flowers May-Sept. (specimens are from near Bonda, July-Aug.) Full set; fairly good.
- 336 Hiraea elegans Juss.
A scandent shrub, to 20 ft. Moderately common in dry forest and thickets below 500 ft. Moderately common in dry forest and thickets below 500 ft.; not observed elsewhere above that altitude. Flowers Oct-Nov. or Dec. Specimens collected 5 miles north of Bonda, 100 ft. Oct. 25. Full set; fine, a few with fruits.
337.
A shrubby tree, to 20 ft. the branches sometimes sub-scandent. Occasional in dry forest, plains near sea-level 5 miles east of Cienaga, collected Sept. 10. Full set, but scant and many leaves fallen off.
- 338 Malpighia glabra L.

A shrub or small tree, to 10 ft. Occasional in low and damp portions of the dry forest region, below 1000 ft. Flowers Aug.-Sept (rarely as late as Dec. Petals pink. Specimens collected near Mamatoca, 100 ft. Sept. 5. Full set, fairly good.

338 8 additional specimens to complete set of 26. also specimens to replace those already numbered, or to work in with them. 8 labels.

339

A scandent shrub, to 20 ft. Moderately common in thickets and along edges of forest, below 2500 ft. Flowers Sept.-Nov. Petals pinkish. Specimens collected near Masinga, 250 ft. Oct. 23.

Full set, but no fruits.

340 Heteropteris densa Griséb.

A shrub with very long, diffuse branches (20-25 ft.) trailing or semi-scandent. Rare in forest, generally near stream, below 2000 ft. The specimen was collected near Masinga, thicket by a river-bank, 200-ft. Nov. 25. Petals deep yellow.

Full set, fairly good, most of the specimens with fruits.

341. Stigmaphyllon ellipticum H.B.K.

A twining vine (and sometimes with tendrils) to 20 ft. Ranges from 3500 ft. to the seashore but is rarely seen above 2000 ft. Flowers (below 2000 ft.) Sept.-Dec.; at higher altitudes in Feb. or March. Specimens from hills, 5 miles southeast of Masinga, about 1000 ft. Nov. 29. Petals light yellow. Full set, good.

341 Dupl.

Coriacea

342. Seguiera coriacea Benth. ?

Scandent (?) 15-20 ft. Thicket below 500 ft., generally in places which are more or less swampy during the rains. It is common on the plains 5 miles east of Cienaga and occurs occasionally in similar situations. Flowers in Sept. I am not sure of the habit of this plant; one of my notes describes it as a tree. Specimens collected near Mamatoca, 100 ft. swampy flats. Sept. 21.

Full set but scant and not very good.

343

A tree, to 30 ft. Moderately common in the dry forest region, generally on low lands or near streams below 1000 ft. Flowers June-July and ⁱⁿ somewhat later. Specimen collected near Bonfa, 150 ft. July 10.

Full set with fruit; flowers not very good.

343 Flowering specimens to replace those already numbered. These are better same list.

344. Hiraea sp. (requires fruit. July 10) Hiraea ovatifolia H.B.K. - July 10.

A vine (or high, diffuse shrub) 20 ft. Rare in dry forest, below 500 ft. and generally near streams. Flowers about July 1. Petals pink.

A fine flowering series was lost by mould. The fruiting specimen was collected in Aug. at Bonda.

26 specimens, fruit only. Flowers for N.Y. and Carnegie.

345.

345 Arrabidaea Smithii sp. nov. Sprague. color variety (white) of 347.

Vine, 30 ft. Flowers blush or pinkish, July. Only one seen, edge of forest a ravine in dry forest near Bonda (250 ft.)

(Is this a color variety of 347? The leaves appear to be generally broader.)

345 Specimen from Bonda, 150 ft., July 30. This is a color variety of No. 347, rare in the vicinity of Bonda. In the specimen now sent the flower was pure white, and I have seen several vines like it. Comparison of fresh flowers with No. 347 does not show any difference except in color.

-42-

345. Dissecting Material. I retain the number provisionally, but think that there is some mistake about it, and that this is the same as No 347.

345 Specimens to replace the numbered set. These are better.

346 Tecoma Stans (L.) Juss.

Tree, 10-20 ft. Common in dry forest, campo thickets etc. below 1500 ft. Begins to flower at the end of Aug., but the trees are not generally in bloom until Oct. continuing to show flowers until Jan. 15 or later (specimens from Bonda, Nov. Full set.

347 Arrabidaea Smithii Sprague sp. nov.

347 Vine, 20-40 ft. Common in dry forest and edge of campo below 1500 ft. Flower rosy, varying somewhat in depth of tint. Flowers June-July-Nov. but most freely July-Sept. (specimen collected near Bonda, Sept.) Full set.

348 Lundia umbrosa Bur.

A vine, 20-25 ft. Flowers white. Common in dry forest near Bonda (below 500 ft.) June-Aug. (During these months I collected only in that vicinity) The leaves are rarely trifoliate. Full set.

348 Work in.

349 Coutarea speciosa Aubl.

Tree, 10-15 ft. Common in dry forest below 1000 ft.. Flowers July-Oct. The flowers vary in size, are sometimes pure white, but generally streaked with dull purple. (specimens from Bonda, Aug.) Full set. The leaves not very good.

350 Pithecoctenium hexagonum DC.

Vine, 15 ft. Flower pink. Rare in dry forest near Bonda. Flowers July-Oct. (Specimens collected in ~~dry forest near Bonda~~ in a ravine, 250 ft. above sea-level, Sept. the fruit was collected in August.)

350 14 additional specimens to complete set of 26. Also, specimens to work in with those already numbered.

350 (already sent in) Specimen from Bonda, 150 ft. July 4 My flower former color note was a mistake. The flower is creamy white. throat within orange yellow. The species is rare, below 500 ft. Flowers June-Aug. Full set.

351 Pleonotoma diversifolium Bur. and K. Sch.

Vine, 20 ft. Flowers white with a slight rosy tinge. Occasional in dry forest near Bonda and Mamatoca. (below 500 ft) Flowers Aug.-Sept. (specimens collected near Mamatoca Aug. 27. 10 specimens.

351 Dissecting Material. Perhaps a color variety of No. 353. Fruits will be sent later.

352 Vine, 25-30 ft. Occasional in dry forest near Bonda, flowering July-Sept. Flower pure white, the throat tinged with yellow. (Specimens collected Aug. 4) Throat sometimes white. Full set, scant.

353 Arrabidaea florida DC.; sent out. Corrected to Cydista seemanii Miere? ^{can't make out}
"both on same list".

Vine, 40-80 ft. Flower lilac-colored. Rare. Several of these vines observed in a wooded valley, about 800 ft. near Masinga Vieja, Sept. 25. Not seen elsewhere. Full set.

353 (already sent in) Specimen collected in forest near Cacagualito, 1500 ft., Nov. 15. This is a high vine, often draping the trees 80 ft. above the ground. It is rather rare, ranging from 2000 ft. to sea-level, flowering Aug.-Nov. I found it blossoming freely along the shores of streams near the sea at Don Diego, Naranja etc. Sept. Corolla pinkish with a lilac tinge.

354 Cordia ferruginea R. et S; in a later list was Callichlamys riparia Miq. Vine 20-30 ft. Locally common in woods and thickets, especially near streams. Flowers Aug.-Oct. bright yellow. (Specimen is from near Santa Marta, Sept. 15.) Full set.

355 Pleonotoma diversifolium Bur. and K. Sch. "Appear to have 2 plants for 1 number"; see 335. A vine with tendrils, 30-40 ft. Common in dry forest below 1000 ft. Flowers June-Oct. deep rosy, below-- (specimens are from near Guaira, Sept. 12.) Full set.

356 Croton niveus Jacq. A shrub, to 7 or 8 ft. Common locally in the dry forest, principally ~~about the end~~ below 500 ft. Leaves deciduous about the end of Jan. and the plant continues leafless until after it has flowers, in April. The flower buds appear as early as Aug. Specimens are from Bonda, 150 ft.; the leaves collected in Sept., the flowers March 13.

356. A shrub, sometimes a small tree, 2-10 ft. Common but somewhat local in the dry forest region, principally below 500 ft. Flowers in March or April, after the first rains, and if dry weather intervenes the same plants may flower again; thus, at Bonda the species was flowering everywhere March 13-14 and again May 24-25, in each case about two days after heavy rains. The flower buds appear as early as Aug. or Sept. Leaves deciduous about Jan. or Feb. renewed March-May according to the situation. Flowers white. Native name Plateado. Flowers collected March 13; leaves in Sept. Full set; leaves not very good.

357 Moderately common in open lands in clearings and on waste lands ground below 2500 ft. Grows to 18 or 20 inches. The specimens were collected at Masinga, 250 ft. Aug. 2.

358 ~~See~~ Occasional in clearings and waste ground below 2500 ft., generally in shady places. The root is often much thicker than in these specimens, and six inches or more long. Collected at Bonda, 150 ft. July-Aug. 14 specimens, mostly poor.

359 Suffruticose. Erect, branching, 4-6 ft. Common locally in dry forest and clearings below 500 ft. Flowers Sept.-Nov. or later. Specimens are from dry forest, below hills 8 miles east of Cienaga, 300 ft. Sept. 11. Branching 4-6 ft. Full set.

360 (var. of 357) A more or less diffuse shrub, the long branches supported by surrounding vegetation; grows to 4 ft. Occasional in dry forest. 500-2000 ft. Specimen collected near Masinga Vieja, about 800 ft. Dec. 2. 20 specimens; Full set.

361. Euphorbia polygonifolia L. Trailing, 2-3 ft. often half buried in sand, on sandy seashore at Don Jaco, Sept. 16. 12 specimens.

362 Phyllanthus Niruri L. (=1463, 374) Herbaceous or suffruticose, 6-18 inches. Local in shady, damp places, edges of clearings etc. below 2500 ft. The specimens were collected near Masinga, 250 ft. July 22 7 specimens.

- A small tree, to 15 ft. Thicket in damp place near Water, edge
363. Croton fragrans Kunth.
of forest, 5 miles east of Bonda, 300 ft. Aug. 3. Only one seen, and the species is evidently rare. Leaves aromatic.
363. Specimens collected near Bonda, 250 ft., May 30. This is a shrub or shrubby tree, to 8 ft. rare in thickets and on the border of forest below 2000 ft. Flowers principally in June and July.
23 specimens, but 19 only fruits, the rest flowers.
363 4 additional specimens (There were 19.)
- 364 Caparonia palustris (L.) St. Hil.
Suffruticose, erect with long branches, 3-6 or 7 ft. Common locally on swampy lands near Cienaga, Santa Marta etc.; occasional inland, in damp clearings and on waste lands, to 1000 ft. The large-leaved specimen was collected near Cienaga, Sept. 9; the other in a clearing near Masinga, 300 ft. Aug. 2
Full set; not very good.
- 365 Manihot Yquilla (H.B.K.) Rusby.
A tree, to 15 ft. Occasional in dry forest and thickets below 1000 ft. and especially near sea-level. Flowers Sept.-Nov. Specimens are from dry thickets by the seacoast at Santa Marta, Sept. 15. Full set, good.
- 365 Additional specimens and 12 specimens to replace the numbered ones
366. Croton fragilis Kunth, H.B.K.
A shrub or small tree, to 10 or 12 ft. Moderately common in the dry, forest region and along the edges of mountain forest, 2500 ft. to sea-level. Flowers May-June. The flowering specimen is from Cacagualito, 1500 ft. May; the fruited one from dry forest near Bonda, 150 ft. July.
Full set.
- 366
Variety with large-leaved, found in thick forest, near Bonda, 200 ft. July. Possibly this should be referred to No. 368, but my note does not mention the peculiar very dark green leaves of that specimen species.
367. Croton punctatus Jacq.
Shrubby, to 2 ft. Sandy seashores; common on the coast east of Santa Marta. Specimens were collected at Buritaca, Sept. 25
13 specimens.
367 13 additional specimens.
- 368 Manihot anomala Pohl.
A tree or large shrub to 15 ft. Moderately Common in scrubby forest, plains 5 miles of Cienaga, Sept. 11; not observed elsewhere. The tree has a very peculiar appearance, owing to its dark green, velvety foliage.
Full set.
- 369 Julocroton hondensis (Karst.) Muell. Arg.
A shrub, 2-5 ft. Moderately common near the sea-level at Cienaga, waste places and irrigated lands, Sept. 10. Full set. x
- 370 Croton hirtus L'Herit.
Suffruticose, to 2 ft. but flowers when a few inches high. Common on open grass lands and in clearings below 2000 ft. Specimens collected near Bonda, 150-200 ft. July. Full set.
- 371
A shrub, to 5 or 6 ft. near X Santa Marta. Thicket on dry hills near the sea. Sept. 13. 10 specimens.

372 Euphorbia pilulifera L. (=75)

Erect or ascending, 12-18 inches. Open, grassy hills, 1200-3000 ft. Locally common. I have not seen observed the species below 1200 ft. but may have overlooked it. Specimens collected 8 miles east of Bonda about 2000 ft. Nov. 15 Full set.

372. This form differs from No. 75 in its mode of growth, being generally quite erect. It has a very different appearance.

Erect or ascending, 12-18 inches. Open, grassy hills, 1200 ft-3000 ft. Not observed below 1200 ft. Specimen collected 8 miles east of Bonda, about 2000 ft. Nov. 15.

373 Phyllanthus micrandrus Muell. Arg.

A tree, 15 ft. Forest, 6 miles east of Bonda, about 1400 ft. Aug. 24. Only one seen. Full set, some scant.

374 Phyllanthus Niruri L. (=362)

A shrub, 3 ft. Swampy alluvial lands, open ground, banks of River Buritaca near the sea, 50 miles east of Santa Marta, Sept. 25. Full set.

375 Phyllanthus acuminata (us?) Vahl (= 376)

A shrub, 10-20 ft. Common in the dry forest region and on edges of mountain forest, 2500 ft. to sea-level. Blossoms May-Aug. The leaves (at least in the region below 1000 ft.) are deciduous, Jan.-Apr. Specimens are from Bonda 150 ft. July. Full set.

376 (var. of 375? The pedicel is shorter.) Phyllanthus acuminata (us?) Vahl (= 375)
A shrub, 6 ft. Edge of forest and open land, 8 miles east of Bonda, 1800 ft., Aug. 24 (fruits only). No specimens except for N.Y. and Carnegie.

377 Justicia secunda Vahl.

Scrubby (sometimes young branches herbaceous) 1-4 ft. Local in mountain forest, 1000-2500 ft. Flowers principally June-Oct., dull crimson. Specimens collected 7 miles east of Bonda, about 1000 ft. Sept. Full set, some scant or not very good.

378 Helicteres corylifolia Nees et Mart.

A shrub, 3-6 ft. Common locally, thickets of the open land and borders of forest. 500-4000 ft. Flowers more or less, throughout the year, red. The specimen with fruit is from Cacagualito, 1500 ft. May. the others near Masinga, 500 ft. Nov. 7. Full set, pretty good.

379

A shrub, 5-8 ft. Occasional in thickets and on open hillsides, 1500-3000 ft. The small specimen is from Onaca, 2500 ft. Dec. 20; the others from Campo Alegre, 1500 ft. Sept. 22. Flowers Sept.-Jan. Scarlet. Full set.

380 Isoloma hondensis H.B.K.

Erect or decumbent. 2-4 ft. Common in thickets and along the edge of forest. 1500-3000 ft. Flowers Sept.-Dec. bright red. Specimens with purple leaves are frequently found, growing side by side with the others, but not on the same root. Specimens collected near Jiracasaca, 2500 ft. Sept. 26; the one with fruit near Onaca, 2000 ft. Dec. 22. Full set, but scant and not first class.

381-A-shrub Stemonacanthus macrophyllus Nees

A shrub, to 6 or 7 ft. Common in damp forest below 300 ft. Flowers bright red. flowers more or less through the year, but more freely Nov.-Dec. Specimens are from the Agua Dulce Road, about 1200 ft. Nov. Full set, fairly good.

382. Meriania longifolia Cogn.

A tree, 30-40 ft. Common in damp forest, hillsides, about 4500 ft. Flower Sept.-Nov. Petals deep rosy (specimens from the Cuacao Mountain, 4500 ft. Sept. 27) Full set.

382 (already sent in) Specimens collected near Manzanares, about 4000 ft.

382 ^{Feb. 28.}
To work in.

383 Piper tuberculatum Jacq.

A shrub or small tree, 3-7 or 8 ft. Occasional in alluvial forest near sea-level. Specimens are from near Bonda, Aug. The washerwomen sometimes use the leaves of this plant to scent clothes. The growing plant has a strong odor of pepper. Full set, but poor.

383 5 additional specimens and specimens to add to the numbered sheets.

384 Piper mandoni DC.

A shrub, 4-6 ft. Occasional in damp forest hillsides, 1500-4500 ft. The specimen is from Minca, 2000 ft. July.

385

A small tree, 10-15 ft. Forest. Mt. Cuaco, 4500 ft. Sept. 27, Full set.
aequale

386 Piper ~~aequale~~ asiocarpum C. DC.

A shrub or small tree to 20 ft. Common in thickets, neglected clearings etc. 500-2500 ft. and in shady and damp ravines near y to sea-level. Specimens are from an old clearing at Cacagualito, 1500 ft., May. 17 specimens.

387. Piper medium Jacq.

A tree or shrub, 6-15 ft. Common locally in damp forest below 1500 ft. Specimens were collected 3 miles south of Manatoca, in a swampy thickets, 100 ft. Feb. 3 Full set; fair.

388 Peperomia pellucida (L.) Kunth. (=1247, 1248.)

Erect. Abundant locally on damp, shady ground, dry forest region, below 1500 ft. Specimens were collected 5 miles north of Bonda, 300 ft., -00. Oct. 19. 13 specimens, scant. The stem and leaves are light green, leaves thin.

389 Cephaelis axillaris Swz.

A shrub, to 8 ft., but commonly not over 4 or 5 ft.. Mountain forest, 4500- 6000 ft. In open forest on ridges it is often common. Blossoming more or less throughout the year. Flowers white (The flowers are generally invisible in dried specimens). Specimens are from Las Nubes, 4500 ft. Dec. 20. ^{Wallochl.}

390 Chiococca parvifolia (var. of 94?) A sem-scandent shrub, 3-10 ft.

This form is found in thickets by the seashore, sandy soil. Specimens are from Buritaca, Sept. 28, Berry white. No specimens except for N.Y. & Carnegie.

391 Lygistum uniflorum (H.B.K. Rusby.

A twining vine to 20 ft. Occasional in mountain-side forest, 500-2000 ft. Flowers May-Oct. or later, scarlet. Specimens were collected 6 miles east of Bonda, about 1000 ft. Aug. 6. Full set.

391 Twining 20 ft. Minca, dry forest Oct. 17 Cherry-colored.

391 3 additional specimens and specimens to add to the numbered sheets.

391 2 extra spec'ns (there are 19)

391 2 additional.

392 Chamelia tenuifolia (or Chomelia) Benth.

A shrub or shrubby tree, 5-15 ft. Common in dry forest below 200 ft. Flowers June-Dec., yellowish white. Specimens are from Bonda, 150 ft. the small one collected July 10, the other in Sept. Full set.

392 11 additional, and specimens to add to numbered sheets.

393 Psychotria alba R. et P.

393. A shrub, 3-6 ft. Common locally in damp forest, 500-2500 ft. Flowers principally in May. Occasionally later to Nov. Corolla white. The flowering specimens were collected near Masinga Vieja, 1000-1500 ft. May/; the fruit at Campo Alegre, 1500 ft. Aug. 24 Full set.

393 Variety collected near Onaca, 200 ft. May 10

394 Hamelia patens Jacq.

A shrub or small shrubby tree, 5-15 ft. Common in dry forest and thickets below 2500 ft. Flowers were more or less throughout the year, -free freely May-Dec. The flowers vary in color from crimson to light orange red. In the dry low lands the plant is seldom over 5 or 6 ft. high, and has more compact foliage and flower-heads. Berry red. These specimens are from Bonda, 150 ft. Nov. Full set. Specimens from Minca and Cacagualito sent to N.Y.

395 Torrubia inermis (Jacq.)

A shrubby tree with long spreading branches; 15-20 ft. Common in dry forest below 1000 ft. Flowers July-Jan., but principally Aug.-Sept. (Fl. (Flowering specimen from Bonda, Aug. 20; fruit from Bonda, Sept.)

395 Specimens from Bonda, Sept. 15. The tree blossoms at intervals all through the year, freely in Sept. and Dec.-Jan. flowers fragrant.

Full set, good. The branches are sometimes spiny.

396, A tree, 30-40 ft. Common in dry forest below 1500 ft. Flowers July-Oct., but most freely in Sept. (Specimens are from Bonda, Sept. -9-sp 9 specimens.)

396 Torrubia inermis (Jacq.)

397 Pisonia ferruginea Klotsch(?)

397 Tree, to 25 ft. Observed only in dry forest near Mamatoca. Flowers Sept.-Oct. (specimens collected Sept. 20) Full set with flowers, scant.

398 Dendropanax arboreum (L.) A tree, to 60 ft.

but commonly not over 30 ft. occasional in forest, hillsides, 1500-3000 ft. Flowers in Aug. (flowering specimen is from edge of forest, road from Bonda to Cacagualito, 2000 ft. Aug. 24 Fruit from Jiracasaca, 2500 ft. Sept. 30 Full set, good.

399 Amyris sylvatica Jacq.

A small tree, 6-12 ft. Occasional in dry forest below 1500 ft. This plant presents the singular anomaly of having two kinds of blossoms at different seasons. It blossoms freely in June, when the flowers are in compact clusters and have petals. Later in the season (Aug.-Nov.) loose clusters appear of blossoms which (generally at least) have no petals. There is no doubt of this observation as I have observed the two kinds of flowers on the same plant, near our house at Bonda.

This specimen was collected at Bonda, June 25.

19 specimens mostly poor. 399 Spec. collected near Bonda, Aug. 25.

400 Rourea glabra H.B.K.

250 ft. Oct. Cant find the label

399 is Amyris sp. (not sent out)

- 401, (not named.)
 Tree 40 ft. Observed only on the top of the Cuaco Mountain, 4500 ft. edge of forest, Sept. 27 15 specimens.
- 402 (not named)
 A tree, to 50 ft. Occasional on river banks and in dry forest below 1500 ft. Fruit in July and Aug. (Flower not yet collected.) Specimens are from near Bonda, July 20 and Aug. 18.
- 402 (fruit already sent in) A tree, generally not over 35 or 40 ft. high; ~~corresponding~~ conspicuous from its bright reddish bark, Flowers collected near Masinga, 250 ft. Aug. 24; only one tree seen in flower and perhaps had blossomed out of season. The flowers (not the leaves) have a strong odor like wintergreen. Leaves have a little aromatic taste.
 Full set, flowers and fruit.
- 402 Tree, 25 ft with red bark. Leaves fragrant. Quebra Concha Apr. 28, Dup.
- 403 Myrtle; (not named.)
 A tree, to 40 ft. or 50 Local in dry forest below 1500 ft. Specimens were collected 4 miles east of Bonda, Aug. 3 Full set, Petals fallen.
- 403 (poor specimens already sent in) Specimen collected 4 miles east of Bonda, 250 ft. July 20. The bark is smooth, light reddish.
 Full set of flowers.
- 404 Picramnia pentandra Sw.
 A small tree, 20-30 ft. Occasional in damp forest, generally near stream, 500-2000 ft. Flowers collected near Calavasa about 1000 ft. May 18. Full set; all but 4 or 5 with fruit.
- 404 Fruit; collected near Masinga Vieja, damp forest by river. Aug. 22
- 405 Protium insigne Engl.
 A tree to 60 or 70 ft. Common in damp forest, 500-3000 ft. Flowers in May and January (specimens is from a wooded valley 6 miles S. (or E.?) of Manatoca, Jan. 7. Full set. Narrow leaves are sent to ~~S. (or E.?)~~ N.Y. Full set, fine.
- 406 Rhus juglandifolium H.B.K. (See 1745)
 A tree, 40 ft., edge of forest, top of the Cuaco Mountain, 4500 ft. S Sept. 27. None of the flowers were open. The tree also had large branches of globose fruits about $1\frac{1}{2}$ inch in diameter.
 Full set, but ten have only buds.
- 407 Guarea trichilioides L. (= 1946)
 A tree, 60-80 ft. Occasional in damp forest, 1000-3000 ft. Flowers Sept.-Oct. (Specimen is from Jiracasaca, 2500 ft. Sept. 28)
 Full set, fair.
- 408 Celtis anfractosa Liebm.
 A shrub or tree to 30 ft. with long, spreading and drooping branches. Pretty common locally in dry forest below 1000 ft. Flowers in June (specimens are from Bonda July 20; the flowers were belated ones. Better specimens will be sent later).
- 408 Specimens collected 3 miles south of Manatoca, 100 ft. May 30. (six (already sent in) The leaves are deciduous about Feb.-March, but are quickly renewed.
- 408 Specimen from Bonda, Aug. 30. The trees, owing to a dry season, flowered later than usual.
- 409 Cascaria corymbosa H.B.K.

- 409 Casparia corymbosa H.B.K.
A shrub or dwarf tree, 3-6 ft. Common locally in dry forest below 1000 ft. Flowers in June and again in Oct. (Specimens are from Bonda; the fruit collected Aug. 20, the flowers Oct. 29)
A fine, full set with fruits.
- 409 Specimen collected 5 miles south of Mamatoca 500 ft. Apr. 10; this plant was a small tree, 12 ft. high, but the species rarely grows so large. It flowers at intervals throughout the year, most freely March-May and the leaves are renewed at that time.
- 409 Specimen from the Don Amo Road, 1200 ft. forest, June 18, from a tree 40 ft. high. I noticed several good-sized trees of the species in this vicinity, though elsewhere it is generally a shrub.
- 410 (=1716?) (not named)
A shrub or small tree. Occasional in dry forest below 1000 ft. (specimens in fruit collected near Masinga July 31.
Full set, fruits only. Fruit of 1716 ?
411. Casparia spinosa Willd.
A shrubby tree, 15 ft. Observed only in dry forest, edge of a ravine near Mamatoca, Aug. 23 Good full set.
- 411 (poor specimen already sent in) A specimen from dry forest 6 miles North of Bonda 400 ft. March 19. The species appears to be rare; I have seen it only in dry forest below 500 ft.
- 412 Coccoloba ramossissima Linden.
A gnarled tree, 20-25 ft. Dry forest 3 miles North of Bonda July 21. A number of the trees were observed in this locality, and all had narrow leaves. 15 specimens, buds only each specimen several small pieces, not very good
- 413 Jacquinia caracasana Kunth.
A shrub or low tree, 5-10 ft. Occasional on very dry rocky hills, principally by the seashore, but sometimes a few miles inland. Flowers Sep-Nov. orange. The whole plant is very brittle, so that it is impossible to reserve large specimens. Flowers are from a dry hill, 3 miles inland from Santa Marta, Sept. 15, The buds from Santa Marta, Sept. 14)
- 414 Calycophyllum candidissimum DC.
A tree, to 35 or 40 ft. Moderately common in dry forest below 1000 ft. and especially along the northern coast; Flowers (inland) Oct.-Jan. but on the coast, until Feb. or later. Corolla and involucre white. Specimens were collected in forest near the coast at Neuanje, Feb. 6.
Full set, good.
- 414 Dried fruits, near Bonda, 250 ft. Aug. 3 after discharging their seeds the husks remain on the tree until the next flowering season.
- 415 Bixa Orellana L. Wild Arnott
A shrub or small tree 10-20 ft. Local along edges of forest, 1000 ft - 3000 ft. Flowers in Sept. and Oct. rosy. This species it is said is not cultivated here. The cultivated form has the leaves somewhat cupped at the base and smaller.
Specimens are from near Masinga Vieja, about 1500 ft. Oct. 10.
The wild form is said to yield a pigment. I have not seen the fruit. Full set, fine.

416 Casearia sylvestris Sw.

A tree, to 30 ft. Rare in damp woods below 1000 ft. Flowers Aug.-Sept.
(Specimens collected 4 miles east of Bonda, about 500 ft. Aug. 26)
19 specimens. d

416 (specimen already sent in) I sent another because the specimens now here have had been mixed with some of # 455 and it is possible that I may have sent one of that species by mistake. This specimen is the one which should take the number 416, collected 4 miles east of Bonda, about 500 ft. Aug. 26

417 Boehmeria caudata Sw.

Shrub, to 10-12 ft. Occasional in damp clearings, about 4500 ft. Specimens are from Las Nubes, 4500 ft. Dec. 16 Also collected at Valparaiso, Feb. 28. Full set, good. the ♀ and ♂ flowers are on different trees.

418 Conocarpus erecta L.

A tree to 30 or 35 ft. Common locally on sandy seacoasts and on flats near the sea. Flowers Sept.-Oct. (specimens is from near Don Jaco Sept. 14) Full set.

419 Laguncularia recemosa Gaertn.

A shrubby tree, to 20 ft. Common on low lands along the seashore. Flowers in Sept. (Specimens are from Cienaga, Sept. 9.) Full set, but flowers mostly dropped off.

420 Avicennia nitida Jacq.

A tree, to 40 ft. or more, but generally not more than 30 ft. Common along the seashore at Cienaga, Santa Marta etc. Flowers Sept.-Oct. (Specimens is from Santa Marta Sept. 13, Full set

420 Suffruticose, upright, branching, 3-5 ft. but often glowers when less than 1 ft. high. Common on campo lands and in clearings, 3000 ft. to sea-level. Flowers Sept.-Dec. orange-yellow (related flowers found in June) Specimens are from near Masinga, 300 ft. Oct. Full set, pretty good.

421

(not named)

A spreading tree, with long branches. Grows to 2500 ft. Common in dry forest and thickets below 2500 ft. Flowers July-Aug. (Flowers collected near Masinga, 300 ft. July 25. The fruit was on old branch collected in June. Better one will be sent later.

Full set but scant and not very good.

422 Coccoloba marginata Benth.

A small tree. Forest near Masinga, 300 ft. Aug. 4
Full set of fruit only; pretty good.

423 Bumelia cuneata Sw(?)

A compact leafy tree, to 25 ft. Occasional in thickets, dry plains near sea-level, at Cienaga. Flowers in Sept., whitish; very fragrant (specimens collected Sept. 9) Good, full set.

424 A large tree. Damp forest, Don Amo Road, about 500 ft. Jan. 13.
7 specimens. (not named).

425 Chlorophora tinctoria L.

A tree, to 30 or 35 ft. Occasional in forest and thickets alluvial ground near sea-level in the vicinity of Santa Marta, Cienaga etc. ^{Guaira} Flowers Aug.-Nov. or later. The o and o flowers are on separate trees. Specimens are from Santa Marta, Sept. 15. Full set, good.

Shrubby (or suffrutescent) 1½ ft.-3 ft. Simple or branching. Local in the dry forest region below 1000 ft., generally Sept.-Dec. Specimen collected near Bonda, 200 ft. Nov. 12. Full set, about 10 have fruited specimens.

426-~~Shrub~~427, Acalypha macrostachys Jacq.

S shrub, at length a tree to 20 ft. Common in dry forest on the Agua Dulce Road, 250-2000 ft. Blossoms in Aug. and again in Jan.; during the intermediate months I have found only immature or fruited stalks. Specimens collected Aug. 25, at about 400 ft. Full set, good.

428 Acalypha Schiedana Schlicht. 100 ft. Sept. (see below)

429. (not named)

A shrub, to 5 or 6 ft. Occasional on damp ground and shady dry forest region, below 1500 ft. Nearly as variable as No. 1417, but always distinguished by the long peduncles. Specimens collected near Masinga, 400 ft. Oct. Full set, good.

430 Ardisia Guianensis ? Ms. name in Herb. Kew.

A shrub or small tree, to 5 or 6 ft. Common in wooded valleys, by streams, below 2500 ft. I have flowers and fruit collected in July, Aug, Nov. and Jan. The flowering specimen is from the banks of a stream, 4 miles north of Bonda not far from sea-level, Jan. 4. The fruit was collected near Bonda in Aug. Full set (of flowers), a few with fruit.)

431. (not named)

A shrub, sometimes a small tree, 5-8 ft. Common on river banks in wooded valleys below 1500 ft. Flowers and pedicels white; blossoms May-July (specimens are from Bonda, July 15.)

431 Fruit of No. 431 Bonda, Aug. Berry red, at length blackish.

432 (not named)

A small tree, to 10 or 12 ft. Common in wooded valleys by streams, below 1500 ft. The specimens are from near Bonda, Aug. None of my specimens show open flowers. Better ones will be sent later. Full set; flowers not out.

428 Acalypha Schiedeana Schlicht.

A shrub, 4-8 ft. Rare in dry forest and thickets near sea-level. The large specimen was collected 5 miles east of Cienaga, Sept. 9, on a shrub which had only 2 flowers; the others are from Mamatoaca, 100 ft. Sept. 16. Full set, but poor.

433. Ardisia Turbacensis H.B.K.

A tree, to 30 ft. or more, Occasional in damp forest near streams 2000-3000 ft. The specimens were collected at Jiracasaca, Sept. 29. I have others collected in Nov. and Dec. Good, full set.

434

(not named)

Tree 40-50 ft. Occasional in forest below 3000 ft. generally near streams. Fruit in August (specimen is from forest near Escalera de los Indios, 600 ft. (Aug. 2) 4 spec'ns, fruit.

435 Eugenia oblongifolia (Sagot?)

Tree, 20-40 ft. Common in wood valleys near streams, below 3000 ft. Flowers June-July (Specimen is from Bonda, July 1) Full set; might be much improved.

436 Ardisia foetida Willd.

A tree 30-40 ft. Occasional in forest below 2500 ft. Flowers in Aug. (Specimen is from a wooded valley near a stream, 6 miles east of Bonda. Aug. 12. Full set.

437 Cestrum vespertinum L.

A shrub or small tree, 3-10 ft. Very common locally in dry forest, the thickets, waste places, etc. below 2000 ft. Flowers more or less from May to Jan~~y~~, but most freely June-Aug. The flowers close during the hot hours of the day, opening at twilight. Berry reddish and at length black. Very variable in the leaves according to situations. All the specimens are from Bonda, June Aug. This is the ordinary free, flowering form, in open places. Full set; fair.

437 A broad-leaved form, found generally in damp and shady places. The flowers are nearly always larger than in the common flower.

437 A short-leaved form, found generally in a dry forest.

437b

437 ~~437b~~ Cestrum vespertinum L. Breynea (illegible) L.

438 Capparis amygdalina Lam.

A tree, to 20 ft. Common in dry forest below 1000 ft. Fruit seen June-Sept. when it opens laterally, exposing the red interior (specimen collected at Bonda, July 20) A single flowering branch June 20.

438 Fruit and poor flowering specimens already sent in) Specimens collected at Bonda, 150 ft. Apr. 2. Petals white. Flowers March-May. 26 specimens; flowers and fruit; good.

439 Capparis odoratissima Jacq. (= C. intermedia)

A tree, to 25 or 30 ft. Occasional in dry forest near sea-level. The fruits are seen from June-until Sept. when they open laterally, exposing the bright red interior (specimens are from near Mamatoca, June-Aug. Flowers will be sent later.)

439 (fruit already sent in) Flowers Feb.-March Specimens were collected near Mamatoca 100 ft. March 11. Petals purplish.

Full set flowers and young fruit. The flowers are not out well; 3 or 4 open in a cluster.

440 A shrub, growing to 3 or 4 ft. Common locally in damp shady places below 2500 ft. Flowers July-Oct. white. (specimens are from Santa Marta, Sept. 15) Full set, but

440 Petiveria alliacea L.441. Moschoxylon sp.

Guetlinda sp. (Labels not sent out.)

A tree to 20 ft. Local in dry forest below 1500 ft. Fruit in July and Aug. (specimen collected near Masinga about 400 ft. July 3)

441 Specimen with green fruit already sent in) The tree ranges to 2000 ft. Flowers July-Aug., yellowish white. The flowers are from Minca, 2000 ft. July Nov. Fruit dark crimson purple. Full set.

441 Specimens to work in with the numbered set.

442 Hirtella triandra Sw.

A tree, to 50 ft. Pretty common in damp, wooded valleys, 1000 -3000 ft. The specimens are from near Masinga Vieja, about 1000 ft. Dec. I have flowers collected in May. Full set.

443

(not named)

A forest tree, to 60 ft. Observed only at Jiracasaca, 2500 ft. Collected Sept. 28. Flowers whitish. Full set.

443 (already sent in) Specimen from forest near Onaca, 3000 ft. Aug. 17. A number of trees were seen in this locality in August. Laurel.

444. Parathesis serrulata Mx. in Herb. Kew.
A tree, to 50 ft. Common in damp wooded valleys, especially near streams.
1000-3000 ft. Flowers May-June. (specimens are from Cacagualito, 1500 ft.
May 15,) Full set

445 (not named)
A tree, to 40 ft. Common in dry forest below 1500 ft. Flowers Sept. Specimens collected near Bonda about Sept. 1. This is the ordinary form, with rather short leaflets.

445 , A form with long leaflets. Road from Mamatoca to Guayra Aug. 27. In a large series of specimens the two forms pass into each other.
Full set.

446 Cupania Americana A. large forest tree. Occasional in damp, wooded valleys. Specimen collected at Cacagualito, May 15. (903 is the same)
Full set.

447 Trichilia appendiculata K L.
A forest tree, to 60 ft. or more. Occasional in wooded valleys, 1500-2500 ft. Aug-8. Full set. The specimen is from near Cacagualito, Aug. 9

447 (already sent in) A specimen with unusually narrow leaves, collected near Cacagualito, 1200 ft. Jan. 18. The tree is pretty common in the forest regions adjoining the northern coast and inland to 1500 or 2000 ft. occurring quite close to the seashore, in swampy woods. I found it blossoming freely in Jan. and Feb; and apparently it has two flowering seasons. Full set.

448 A spiny shrub with slender, spreading branches, 4-6 ft. Occasional on dry plains and hills near the coast. Flowers Sept.-Nov. (specimens are from near Papare, Nov. 2. 12 specimens, scant.

449 Capparis cynophallophora L.
A tree, to 25 ft. Occasional in dry forest below 1000 ft. Flowers Aug.-Oct. The specimens are from a dry, rocky hill near Santa Marta, Sept. 17. Flower white. Full set, good, but some rather scant.

450 Lippia hemispherica Cham. (may not have spelled specific name correctly)
A shrub, 8-10 ft. with long, drooping or diffuse branches. Very common in dry forest below 1000 ft. Flowers Sept.-Nov. The leaves fall off about the end of December and the smaller branches die. (specimens from Bonda, Oct.)

451 Diospyros Paralia Spruce
A tree, near Santa Marta, July 25 16 specimens, scant.

452 Frema mollis (Willd.)
A tree, to 25 or 30 ft. Moderately common below 2500 ft. generally in thickets, near water. The specimens are from Bonda, 150 ft.; they are with young fruit collected in Sept., the others in July and Aug. Berry red Full set, scant in parts and some not very good.

453 was Callichlamys riparia Miq. suppressed.
453 labels sent out of Frema rufescens Planch.
A tree, to 30 or 35 ft. Sometimes shrubby. Common in open places thickets and old clearings below 2500 ft. Flowers throughout the year. The berry ~~red~~ is red. Specimens collected near Masinga, about 300 ft. Aug. Full set, good. The species seems to be remarkably constant in the form of the leaf pubescence, etc.

454 Maytenus myrsinoides Riess.
A tree, 30-50 ft. Common in forest near streams below 2500 ft. The leaves

454 (continued) vary in size; they are dark green but paler along the mid-rib above. Calyx tube lengthens during development, so that some flowers appear shorter than others; Larger specimen cultivated near Bonda, Dec. 29; and then from Bonda Aug. ; the fruit from Cacagualito, May. The tree appears to blossom at intervals from May to Jan. or later, the same tree blossoming several times. Full set, good.

454 A form with unusually large leaves near Bonda, Aug. 4.

455 Casearia parviflora Willd.

A tree, to 30 ft. Occasional in wooded valleys and ravines, 500-3000 ft. Flowers in Sept (specimens are from a ravine near Jiracasaca, Sept. 30) Full set, good.

Prattis

456 Sideroxylon mastichodendron Jacq.

A tree, to 60 or 70 ft. ^{Very} common in dry forest below 1000 ft. Flowers at the end of Aug. (Specimens are from Bonda, Aug. 20) Full set. All have some flowers out but not well opened. Others were ~~good~~ good

457 Ossaea micranthe Macf.

Tree, 15-20 ft. Observed only in damp forest, ravine by a stream. Campo Alegre about 2000 ft. Nov. 20. The trees showed only a few flowers on the same branches with the fruits. Ripe berry is white. 22 specimens; fruit.

458 Clidemia brachystephana Tri. ^{See} 770

A shrub, 4 ft. Common at Campo Alegre, 2000 ft. in hillside thickets. A few ~~good~~ specimens seen near Onaca, 3000 ft. and on the Agua Dulce road 2000 ft. Flowers Nov.-Dec. Petals white. (specimen is from Campo Alegre Nov. 20) Full set, fair.

458 Specimens to work in with the numbered set.

459 Clidemia glandulifera Cogn. crossed out for Clidemia hirsutula DC.

" appear to have two plants for number" The last not sent out. Shrub 4-5 ft.. Common locally in thickets at about 2000 ft. Flowers in July- Nov. (specimens are from Campo Alegre, Nov. 20) Petals white. Full set, but only about 15 have flowers. fine otherwise.

460 Tibouchina longifolia (Vahl.) Baill.

Shrub 2-4 ft. Common in campo thickets 2000-3000 ft. and occasional along streams as low as 500 ft. Flowers Oct.-Jan. Petals white. (specimen is from Campo Alegre 2000 ft. Nov. 20.) Full set, nearly all fine.

461 Pterolepis trichotoma Cogn.

Annual. Grows to 2 1/2 ft. A common campo plant, 800-3500 ft. Flowers Nov.-Dec. Petals rosy (The fruited specimen is from the Agua Dulce Road, 2000 ft Nov. 22; the others from near Masinga Vieja, 800 ft., Nov, 11) Full set, somewhat scant.

462. Sida angustifolia Lam. Upright, 2-3 ft.

with few or no branches, Flowers Aug.-Nov. observed only in a small, campo, road, from Bonda to Cacagualito, about 1000 ft. Specimens collected Oct. 24. Full set, scant and not very good.

462 Dissecting Material

This is closely allied to No. 463, but the lower leaves and those of young plants are larger; the pedicels are ~~longer~~ longer, the carpids have shorter beaks; the plant does not flower until it is well grown; and it was found inland, on the foot-hills, No. 463 being confined, apparently, to plains near the coast. I neglected to note the color of the flower of 462.

463 Sida angustifolia Lam - 82*(+462)
Upright. Grows to 24 inches, sometimes branching, but flowers when only 4 or 5 inches high. Flowers Sept.-Nov. Common on plains near the sea. (The small specimen is from Cienaga, Sept. 11; the other, from near Papare, Nov. 4) Petals pale yellowish.

463 (already sent in) Specimens from a clearing 3 miles inland from Santa Marta, Dec. 8. Some of the plants were over 3 ft. high, and branching. Probably like other species of the order, it attains its full growth in Nov. or Dec., but begins to flower when small. I have a stunted specimen from Bonda, 8 miles inland. The petals are creamy white, not pale yellow as stated in my note. Full set, pretty good, but does not show the flowers.

464 Turnera ulmifolia L.
Upright, 6-24 inches. A common campo plant below 2500 ft., growing also in clearings, open ravines etc. Flowers June-Jan. (and, perhaps, throughout the year) Petals yellow, the vase with a crimson blotch (specimens are from near Bonda, Nov. Full set.

464 (already sent in)) variety from grassy hills near Masinga, 500 ft. Nov. 8 The petals have no crimson blotch at the base. This color-variety is rare, the flowers in this species being very constant though it varies greatly in the leaves.

465 Melochia nodiflora Sw.
465. Upright with very regular, alternate branches, 3-4 ft. Occasional in dry forest and open places below 2000 ft. Flowers Nov. and Dec. pink. (specimens are from near Bonda, Nov.)
Full set, some rather scant and some might be improved.

466, Sida linifolia Juss.
Upright, without branches or branching only when near the top. Occasional on campo land, 800-3000 ft. Flowers Sept.-Dec. Petals pale saffron - yellow (specimens are from Jiracasaca, 2500 ft. Sept. 30)

466 (already sent in) Specimen from grass-lands, hills 5 miles northeast of Masinga, 800 ft. Nov. 30. This species is widespread, but nowhere common. The petals are salmon colored rather than saffron (as stated in my note) but vary somewhat in depth of color and tint.
Full set, pretty good but most without roots or lower leaves.

466 Specimens to work in with numbered set.
467 Hibiscus Brasiliensis L. Upright, branching 2-5 ft. Local and rather rare in dry forest and ravines near Bonda and Mamatoca (below 1000 ft.) Flowers Sept.-Nov. bright red. (Specimens are from the vicinity of Bonda, Oct.) Full set, rather scant.

468 (not named)
Trailing, 2-4 ft. Dry, rocky places in campo, 800-2000 ft. Common locally. Flowers Sept.-Dec. orange. (specimen collected near Masinga Vieja, 1000 ft. Nov.) (Specimens 10 specimens. 19

469 Waltheria Americana L. Trailing, sometimes decumbent, or even upright, 2-3 ft. This is the common campo form below 800 ft. Blossoms Oct.-Dec. orange yellow. (specimen collected near Masinga, Oct.) 10 specimens.

470 Waltheria Americana L. Dissecting Material. This plant blossoms freely during the dry season, Dec.-April Two pretty constant varieties may be distinguished; the large-leaved one, which is generally found in damp clearings, growing to 5 or 6 ft. with spreading branches; and the small leaved one, found in open dry places, rarely over 3 ft. high and not spreading in its growth. I have these provisionally under the same number.

Upright, generally without branches, 3-5 ft. Common locally on open campo land, 800-3000 ft. Flowers May-Sept. orange yellow.

Full set; not particularly good.

472 Variety from swampy lands 3 miles South of Mamatoca, 100 ft. March 7
The leaves are constantly shorter and smaller, and the crimson blotches on the capsule are reduced to thin lines.

472 Melochia pyramidata L.

Upright, branching 3-6 ft. Clearings and open land near sea-level. Local and not common. Flowers Sept.-Nov., primrose color (Specimen is from Papare, Nov. 6) Good, full set, all with fruit.

472 (already sent in) Specimen from Calavasa 600 ft., Dec. 13. The species is local but pretty common in some places, generally low and somewhat boggy land; generally it is about 4 ft. high, but at Cienaga I have found it growing to more than 6 ft. Petals primrose or purplish, yellow at base. Capsule blotched with dull crimson.

473 (not named)

Trailing on sands, seashore near Don Jaco, Sept. 15, 2-4 ft. often partly buried in the sand. Flower primrose color.

Full set, scant; mostly without fruit.

L. (?)

474 Melochia tomentosa Suffruticose or shrubby 1-7 ft. Common in dry, open places near sea-level, and occasionally to 3000 ft. Near the sea it is a strong-growing shrub. Flowers June-Dec., primrose colored. (specimen is from near Mamatoca, Sept. Full set. Mostly small leaved; might be much improved.

474 (already sent in) Specimens collected near Bonda, 150 ft. Nov. 21. The flowers vary much in tint and depth of coloring, being rosy, primrose or very pale purplish, nearly white. The large leaves are found on strong growing plants, especially in the wet season. Flowers more or less there throughout the year.

475, Kosteletzkya sagittata Presl.

Upright, branching, 5 or 6 ft. but flowers when 2 ft. high. Flowers at first lateral, later ones terminal. Common in damp places and on irrigated land near the coast. Flowers Aug.-Oct. (and later) pale saffron. (specimens from Cienaga Sept. 12).

476 Sida ciliaris L.

Prostrate. Spreading, 4-12 inches. Common in open plains, and in thickets near Cienaga, where the specimens were collected Sept. 12 Observed rarely near Bonda. Flower salmon colored. Full set, scant.

477. Herbaceous, Upright and branching or more or less diffuse. 2-5 ft. Waste places and clearings below 2500 ft. Flowers July-Nov. orange yellow. The leaves and calyx catch on clothing and can only be removed with difficulty. The plant is common locally, especially near sea-level. (specimens from near Masinga, Full set. Mentzelia aspera L.

478. Upright or diffuse or prostrate, 6 inches to 2½ ft. A very common and very variable weed in waste places, by roadsides, open woods, clearings, etc. 5000 ft. to sea level. Flowers May-Jan. (and, probably more or less throughout the year) Petals ochraceous yellow. (specimens from Bonda, Aug.-Sept. Sida carpinifolia L. f. = 731

478 (already sent in) Variety from Bonda, Dec. 1. The carpids have very short beaks or in some cases or in some cases none at all. I do not think that this character has any importance as the carpids beaks vary greatly in length. The leaves are broad or narrow in the same plant. Some plants

(continued) are glabrate, others have simple, others stellate pairs, or the two are mixed; and the plants may be prostrate or ascending or erect. ^{see below} *The though they vary in depth of tint; the petals are two-lobed, one lobe shorter than the other, giving them a contorted appearance; a character found in several allied species. The color is ochraceous yellow.

Good full set. * The flowers are pretty constant,

479 Diffuse, 10-20 inches. Common in open places below 3000 ft. Flowers Oct.-Dec. white (Specimens are from a dooryard at Bonda, 200 ft. Oct. 15) Full set, but scant and no fruits.

479 Sida jamaicensis L.

480 Sida rhombifolia L. Upright, branching, 2-4 ft. Common locally in clearings and waste places, 5000 ft. ~~July~~ to sea-level. Flowers July-Dec. pale yellowish (specimen is from near Masinga, 400 ft. Nov. 29) Full set, good.

481 Sida diffusa Moric

Trailing, with ascending branches, sometimes upright 1-3 ft. Common locally in clearings and open places below 3000 ft. Flowers July-Dec. mostly freely in Nov. Petals white (specimens are from Guaira, near sea-level, Nov.) Full set, scant and poor.

481 specimens to work in with numbered set.

482 Sida glomerata Cav. Suffruticose, upright with regular alternate branches, 2-4 ft. Local in dry woods near Bonda (below 5000 ft.) Flowers Nov.-Dec. white.

482 Dissecting Material. The large piece is from Calavasa, 600 ft. Dec. 11 The species is pretty common locally in the forest region 20-50 miles east of Santa Marta, below 2000 ft, growing in the forest or on the borders of open land. Good, full set. Var. from Cacagualito (less hairy sent to N.Y.)

483 Malvastrum spicatum Gray

Suffruticose, upright, branching, 3-5 ft. Flower yellow. Common on dry plains not far from the sea, between Guaira and Cienaga. Flowers Oct.-Nov. (Specimens, ~~yellow~~ are from near Papare, Nov. 8.)

Near Santa Marta Low land, irrigated Sept. 15.

483 Specimens from dry forest and on open ravine near Playa Brava. Nov. Full set; pretty good.

484 Suffruticose, upright, with long, slender branches 4- ft.; Flowers Nov.-Dec. yellow. Local and rare open plains in forest and clearings, 1000-3000 ft. (Specimens are from the Agua Dulce Road, 1000 ft. Nov. Full set, some are scant. Not named.

485 Suffruticose, upright, branching, 2-3 ft. Local and not common on open, irrigated land near Cienaga, Collected Sept. 10. Flower pale yellow.

486 Sida glandulosa Cav. (-488?)

Upright, branching, 3-4 ft. Flower yellow. Common on plains near the coast at Papare, Santa Marta, etc. The leaves have a peculiar fetid odor (Specimen collected near Papare, Nov. 5. Full set, scant and poor.

487 "Is a Bastardia" Upright, 3-4 ft. Flower yellow. A common form on plains along the coast. Specimens are from Cienaga, Sept. 8. Full set, scant and poor. Hardly any show open flowers.

488. Upright. Bastardia viscosa (L.) H.B.K.
3-4 ft. Common ~~lesely~~ on irrigated lands at Cienaga, Sept. 7-12
19 specimens, about half good.

A shrub to 5 ft.

488(already sent in) Specimen from a clearing near Masinga 250 ft. Nov. 16
Flowers yellow. Rare in this vicinity. The leaves of the Masinga plant
are all small, and less attenuated at the apex than those of the Cienaga
plants. This is due, no doubt, to the situation on an open and comparative-
ly dry place.

489 Sida pyramidata Cav. Upright with few branches, 2-3 ft. Common in dry
forest below 1000 ft. Flowers Nov. Jan. (Specimens are from near Mamatoa
Nov. 22. Flower yellow. Full set, scant and poor.

489 Dissecting Material. The species is local in damp and shady situations
generally near sea-level.

490 Abutilon divaricatum Turcz. (and 1190^a)

Suffruticose, upright, branching, 2-5 ft. Common in clearings and waste
places below 1500 ft. beginning to flower in Dec-Nov. but on irrigated
lands at Masinga found early in Sept. Related flowers seen in June. (Speci-
mens from near Bonda, Nov.

490 Specimens from Playa Braba, coast E. of Santa Marta, Nov. Full set.
Petals very badly eaten and specimens poor anyway.

491 Sida nervosa DC.

Upright, branching, suffruticose, 4-5 ft. Observed only in open places
in hillside forest, Agua Dulce Road, 1500 ft. Nov.-Jan. (specimens col-
lected Nov. 22. Flower pale yellow, in some plants nearly white. 15 speci-
mens; scant.

492 Pavonia Mutisii H.B.K.

Suffruticose, 3-5 ft. Observed only in an open, damp place in forest near
river, 2 miles east of Masinga (about 300 ft.) Flowers Oct. -Dec.)
Petals white (collected Oct. 18) Leaf viscid.. Good, full set. Petals pink.

492 Dissecting Material. A very similar but more hairy species or variety
(a high shrub) is sometimes planted and used as a medicine; I do not
know if it grows wild.

493 Waltheria involucreta Benth.

A shrub or small tree. Common in campo and open places, below 2500 ft.
principally between 500 and 1500 ft. Flowers Oct. 15-Dec. 15. yellow (speci-
mens is from near Masinga, 500 ft. Oct. 25. Full set. (Narrow bracted form)

493. Dissecting Material. The plant is in bloom for eight or ten weeks,
Oct.-Jan., but only a few flowers are open at one time. hence it is nearly
nearly impossible to get specimens showing a large number of flowers.

494 Malachra rotundifolia Schrank.

Suffruticose, upright, branching, 5-6 ft. Flowers orange-yellow. Ob-
served only in thickets on the outskirts of Masinga (about 300 ft.)
Flowers Oct.-Dec. (collected Nov. 17.) Full set; only 7 or 8 with lower
leaves.

495 Pavonia piculata Cav. Suffruticose ; upright with long branches, 3-8
ft. Local, open places in damp forest, 1000 ft.-3000. Flowers Nov.-Dec.
(specimen is from the Agua Dulce Road, 1000 ft. Nov. 20) Full set, good.

495 (already sent in) Var. from Don Amo Viejo, 200 ft. Dec. 6. Leaves of t
this form are found occasionally on nearly all the plants of this spec
ies. and above or below the other leaves; in the Don Amo Viejo plants
they seem to be rather the rule than the exception.

Wissadula periplocifolia L. Griseb. 716

Upright with few or no branches; grows to 6 ft. or even higher but blossoms (laterally) when not more than 18 inches high. Common in low land near the coast and occasional in ~~low land~~ dry places several miles inland. Blooms Aug.-Nov. (specimen from Cienaga Sept. 9)

496 Young plant with lateral blossoms, Cienaga Sept. 7. Full set, but petals much eaten by Psoccus, and many lack large leaves.

497 Sida dombeyana DC. Suffruticose, Upright or decumbent. Grows to 3 or 4 ft. but flowers when 1 ft. high. Flowers June-Dec. deep yellow. Common in dry woods and ^{below} shady places 1500 ft. (specimens are from near Bonda, Nov. 4) Full set. Not very good.

497. Dissecting Material. A variable plant. In shady places it has larger and broader leaves and commonly is not over 2 ft. high. In damp, open places, clearings etc. it attains a growth in Nov. to 4 ft. or more with long branches. Generally it is erect. The flowers are oftenest deep yellow but vary to orange, pale yellow or nearly white, flowers of different colors growing side by side.

498! Fimbristylis spathacea Roth.

Boggy land near the seashore at Cienaga Sept. 9 Not observed elsewhere. Full set, but only a few roots and specimens somewhat immature. / e.

499 Cyperus platystachys Griseb.

Common in damp clearings, 3500 ft. to ~~seashore~~ sea-level. Specimen was collected near Bonda, 250 ft. July 10. 14 specimens, some poor.

499

~~499~~ Common in damp clearings, 3500 ~~ft. to sea-level~~ ft. to sea-level. Specimen was collected near Bonda, 250 ft. July 10. 14 specimens, some poor.

500. Andropogon ruprechtii (Fourn.) (~~not-named~~) Hack.

Erect, 4-5 ft. Common on open hillsides, 500-2000 ft. Flowers in Dec.

Specimens were collected near Masinga Vieja, 300 ft., Nov. 28.

Full set; flowers scant.

500 Specimens to add to the numbered sheets.

501. Chaetochloa amplifolia (Steud.) (~~not-named~~,) Scribn. --60--

Ascending or erect, to 4 ft. Local below 3000 ft. in clearings and damp places in the open lands along the border of woods. Flowers principally July-Nov. Specimens were collected near Masinga, 250 ft. Sept.

Full set; but leaves are generally cut separately and above the joint 501 Specimens to replace those on the numbered sheets, which are poor.

502

Common on open, boggy land below 3000 ft.; it forms large clumps, the long stems erect among other grasses, or lying on the ground if not supported. Wet rocks and banks are sometimes covered with it. Specimen was collected near Masinga, 2500 ft. July 10. Good, full sets with roots.

502 Duplicates.

503 Eupatorium iresenoides Kunth.

Occasional in dry forest and thickets, 1000-5000 ft. Flowers May-Dec. and probably through the year. (The larger specimen is from Las Nubes, 4500 ft. Dec. 16; The other from ~~Mamatesa~~ near Onaca, 2000 ft. Dec. 29. Erect or more or less diffuse with long branches, 3-4 ft.

Full set, good, but had moulded a little and mould cannot be brushed off

503 Variety. Edge of forest near Masinga, 500 ft. Dec. 2.

503. Variety, near Escalera de los Indios, 1000 ft. Aug.

504 Eupatorium iresenoides Kunth

Local below 3000 ft. in dry forest and thickets. (Specimens are from near Bonda, July -Oct.) Habit of # 503, 13 specimens.

504 Dissecting Material. I do not think that this can be distinguished from No. 503, even as a variety. The short leaves may be a peculiarity of young or imperfectly plants; and there are intermediate forms; the plants are more hairy at higher altitudes.

505

(not named.)

Occasional in thickets and dry forest below 3000 ft. Grows to 4 ft. with long branches. Flowers purplish. Flowers May-Dec.) Full set, pretty good, but a little mouldy.

506 Eupatorium odoratum (already sent in) L.

I send another specimen as I may have mixed it with No. 1991) Bonda, Dec. This form is erect or nearly so, about 5 Or 6 ft. ~~with long branches. --Flowers--~~ 1991 has a more straggling habit. This is the common form in open places below 1000 ft. Flower generally white, sometimes slightly tinged with blue.

17 specimens; not very good and they had moulded badly.

(I have not seen the original label. Mrs. H.H.S.)

507 Baccharis cinerea DC.

Low thickets near sea-level, Cienaga, Sept. 12. A scandent shrub, 15-15-20 ft. Flowers white.

507 Dissecting Material. This species seems to be confined to low and swampy lands near the sea. I have specimens from Buritaca similar in every respect to those from Cienaga.

Full set, but very poor; the specimens had moulded badly and could not be properly cleaned. In most the flowers are too ripe, all o. A poor o specimen sent with dissecting material to N.Y.

508 Erēchthites valerianifolia (Wolf.) DC.

508 Upright, 5 ft. damp ground, clearing, Jiracasaca, Sept. ~~25-30-61~~ 61--25-30; not observed elsewhere; appears to be an annual. Pappus rosy.

Full set. Specimens had moulded and could not be cleaned properly.

508 Dissecting Material. I cannot find any clear distinction between this and No. 664; yet the two have a very different appearance. No. 664 is seldom over 2½-3 ft. high, and the flower clusters are not large; this form is commonly 5 ft. high, with large, showy flower-clusters; and the large, deeply cleft lower leaves are a constant character. I have a single specimen from Campo Alegre, 2000 ft., and it is common in a clearing at Jiracasaca; but I have not observed it elsewhere.

509. Jessaria mucronata DC.

A tree, 10-15 ft. but flowers when not more than 2 ft. high. Rare at Cien Cienaga, in wet ground, open places. The specimen is from a swampy place by the seashore, Sept. 8. Flower pink.

Full set, somewhat scant and in some, flowers are not out well.

510 Verbesina diversifolia DC.

A shrub with long suffrutescent branches, upright from a woody stock, 6-8 ft. Forest road from Bonda to Cacagualito, 1500 ft. Nov. 10. Flowers white. Full set, good but scant.

511

(not named)

Shrubby with long branches, 3-5 ft. Common in campo thickets, clearings etc. locally, below 3000 ft. flowering Nov.-Dec. Flower rosy (Specimen is from near Escalera de los Indios, 800 ft., Nov.)

Full set, some poor.

512 Bidens leuconthe Willd. (?)

Observed only in damp woods near river at Masinga (about 500 ft.) Nov. 15-30. 23 specimens, scant and poor and only 14 have fruit.

513 Spilanthus Acnilla L.

Local in damp, shady or open ground below 3000 ft. Nov.-Dec. Bonda, Matoca, Onaca etc. Upright, 1-3 ft. Full set, good.

514 Melampodium divaricatum (Rich.) DC.

Upright, 1-2 ft. A common weed in clearings below 3000 ft. often covering the ground. Appears to flower more or less throughout the year, most freely in the wet season, April-Nov.

Full set, good. Varieties sent to N.Y.

* (~~out-of-place~~)-512, -Observed

515

(not named)

Common in campo thickets, dry woods etc. below 1500 ft. A shrub, 4-6 ft. Bonda, Masinga etc. July-Oct.

515 (already sent in) A variety collected near Masinga, 250 ft., the large one Dec. 16, the small one Nov. 20. This species varies greatly in the form and pubescence of the leaves, size of flowers and habit; it may be a low, compact shrub or subscandent to 6 or 7 ft. The rough stem and curved stiff hairs on the veins seem to be constant characters; generally there are little tufts of fine hairs in the axils of the veins.

Full set; might be improved,

516 Campo thickets on road from Bonda to Cacagualito at Campo Alegre etc.

A shrub 5 or 6 ft. high, semiscandent among bushes Nov.-Dec.

Full set, good, but flowers had moulded and mould encysted.

516 (already sent in) A variety with elongate leaves. Dry, open watercourse near the coast at Playa Brava, Apr. 1. The form of the leaves is constant in a large series of specimens.

516 Variety. Road to Agua Dulce, thickets near streams and on damp hill-sides, Jan. 16; my specimens show a passage to No. 516 but not to No. 517.

517.

A common species in hillside thickets, ravines etc. below 1500 ft. near Bonda. Forms a shrub, 4-5 ft. high, with numerous branches, Oct.-Nov. Full set, good.

517 Vars,

518 Cienaga, Sept. 6-12.

Suffruticose, Upright, 1-3 ft. Observed only in one place, thicket on irrigated land near the sea, Sept. 6-12. Full set, scant.

519 Bidens tereticaulis DC.

Shrubby with long, vine-like branches, 8-10 ft. Local 1000-3000 ft. at ~~fin~~ Jiracasaca, Campo Alegre, Minca etc. Flowers Oct.-Nov. Edge of campo and open places in forest. Grows in large masses. Full set, good, but specimens had encysted mould.

520 Egletes humifusa Less.

Plains near seashore, at Cienaga, Sept. 7-12. These lands are more or less swampy during the rains, and very dry from Dec. to May. Ray flowers white. 20 specimens, scant.

521 Elvira Martyni Cass

A common weed in clearings below 3000 ft. Flowering Oct.-Dec. Upright 2-3 ft. Flowers yellow. (Specimens are from Bonda, October.)
Fine full set.

522 Eupatorium paniculatum Schrad.

A common weed below 4000 ft. in clearings, thickets, damp campo ground etc. Bonda, Onaca, Cacagualito etc.. July-Dec. (The smaller specimen is from Bonda, July; the larger one from Onaca, 2500 ft. Dec.) Grows to 2 or 2½ ft. Full set, pretty good.

522 (already sent in) Specimens from Calavasa, 500 ft. Jan. 2., showing variation in position of the leaves. The leaves may be opposite or alternate on the same or on different plants; the form of the leaf is quite constant. The plant is sometimes erect, oftener decumbent or straggling in growth, the stems rooting at the joints. Flowers pale rosy; but the flower-heads look green owing to the including scales.

523 Ageratum conyzoides L.

Herbaceous. Erect, 2-3 ft. Common in clearings and open places below 3000 ft. Flowers in Nov.-Dec. Flower white. (specimens are from near Masinga, Nov.) Full set, fairly good. All young flowers. Some moulded a little. Occurs at Las Nubes, 4500 ft.

524

Shrub, 2-5 ft. Common locally on campo land below 3000 ft. Flowers Sept.-Dec. (Specimens are from Campo 5 miles east of Bonda, Sept.-Oct.)
Full set. Not first class.

525

A tree, 10-20 ft. Locally common in dry forest near Bonda, (below 500 ft.) Flowers at end of Sept., and in June. Full set, not very good.

526

526 Willughbaea scandens (L.) Kuntze. 526 Common in damp clearings etc. especially along streams, below 2000 ft. Twining, with erect branches 4-5 ft. Specimens are from Bonda, Aug. Flowers June-Dec. 26 + 5 specimens.

OK-5

527 Leptilon Canadense (L.) Britton
Campo and clearings below 3000 ft. Local and not very common, July-Sept.
Grows to 3 ft.

527 (already sent in) Variety from an open, dry water-course, 5 miles north of Bonda, 100 ft. Oct. 19.

This species is more common than I had supposed, but flowers principally in Dec. and Jan., though flowering plants are found throughout the year. Flowers whitish.

Full set, pretty good, but get more full, large heads.

528 (Specimen collected near Bonda, 250 ft. Nov. 16.) This species is local and rather rare on the open lands. An infusion of the whole plant is used as a remedy for fevers.

529 Pectis linifolia L. (=530)

Common at Cienaga and other places near the seashore, on dry plains and irrigated lands; upright, branching, 2-3 ft. Flowers Sept.-Oct.

(specimens are from Cienaga, Sept. 7.)

~~530 Melanthera deltoidea Rich. (=673-?)~~ 530 Pectis linifolia L. (=529)
Erect, branching, 2-3 ft. Occasional in dry forest and clearings near Bonda, Aug.-Oct. Full set, good, all with roots.

530 Dissecting Material. No. 529 is the same, the specimens being badly pressed so that the leaves appear narrower. The species is common near Cienaga, local and rather rare near Bonda.

531. Melanthera deltoidea Rich. (=673 ?)

Erect, or more or less diffuse, with a few long branches, 4-6 ft., locally common in clearings, thickets, and dry woods below 3000 ft.

Flowers Nov.-Dec. (specimens are from forest, road from Bonda to Cacagualito, 1000 ft. Nov. Good, full set.

531 Specimens showing passage to No. 673

532 Tridax procumbens L.

Very common in clearings, campo land etc. 5000 ft. to sea-level. Flowers June-Nov. Full set, good; about half with roots. Disk pale yellowish; ray, flowers white. Occasional on the seashore.

533 Eupatorium ivaefolium L. (=617)

1000-3000 ft., near Onaca. Flowers Aug.-Sept. bright purplish blue. Shrub, upright, 3-4 ft. Locally common, generally in ravines, campo, edge of forest, or on open campo. Full set. Might be much improved.

533 Dissecting Material. I now restrict this number to a form with small, narrow leaves, which I found blossoming at the end of Aug. and in Sept., at about 1200 ft. Other small-leaved forms must, I think, be referred to No. 617, which blossoms later and has paler flowers. The distinction between the two is not very evident; apparently the receptacles are differently shaped.

534 Pectis jaliscana H.B.K.

Common on campo 500-3000 ft., flowering in Oct. and Nov. and rarely in May. (the large specimen is from near Escalera de los Indios, 800 ft. Oct. The smaller from Cacagualito, 1500 ft. May. Good, full set; all with roots.

535 Porophyllum ruderale (Sw.) (Compare 672)

Herbaceous, erect, with very regular, ascending branches, 2-4 ft. Local on damp hillsides and in clearings generally in somewhat shady situations. Observed at various places in the country back of Santa Marta below 1500 ft. Specimens are from near Bonda. Full set; a little scant.

536 Baltimore sp. nov. (not sent out)

Upright, branching, 3-4 ft. A common species on hot, dry plains and rocky low hills within 3 or 4 miles of the sea, at Cienaga, Papare, St. Marta, Playa Braba etc. Sept.-Nov. Flower yellow. Full specimens, not very good

537 Eclipta erecta L.

Wet land, ditches, rocks, etc. near streams and pools. Occasional below 1000 ft. at Bonda, etc. At Cienaga, where it is more common I have seen specimens 2½ ft high. Flowers June-Dec. and probably through the year (specimens are from Bonda, July-Aug.) Full set, fairly good, but a little scant, and only 17 have roots.

537 Work in.

538 Evolvulus alsinoides L.

Diffuse, to 3-4 ft. but blossoms when small. common below 1000 ft. in dry situations, forest or thickets on the open land. Variable in the size of leaf and flower, down etc. The long sprays are a later growth and have a very different appearance from the smallest blossoming sprays at the beginning, Full set, -pretty good, -of the rainy season. The flowers vary in color from deep blue to pale blue or (rarely) pure white. Blossoms more or less from April to Jan., but most freely in Dec., when the plants have attained their full growth. Specimen is from the dry forest, 5 miles north of Bonda, 100 ft. Dec. 15.

539

Annual, erect or somewhat spreading to 1 ft. but blossoms when small. Common on open lands below 2000 ft. Flowers Oct.-Dec., pale blue. Specimens were collected near Bonda, 200 ft.; the small one Oct. 16, the larger one Nov. 2. Full set.

540 Krameria latifolia Moric. (?)

A stiff-growing plant, upright with long, straight branches, 2-3 ft. Common on open grass-lands below 1500 ft. Flowers more or less through the year but freely in the rainy season. Flowers light reddish. Specimens collected near Masinga, 250 ft. Oct. 26 Full set. Rutana

541 Coccocypselum umbellatum Poir.

Trailing, 2 ft. Local and rare on boggy, shady ground, 1500-3000 ft. The 1800ft. specimen is from Campo Alegre, Nov. 19. Flowers Aug.-Jan. or later. Flower and berry blue. Full set.

541 Specimens to add to the numbered sheets.

542 Chenopodium ambrosioides L. † Not marked as sent out.

A diffuseshrub, 3 ft. Cultivated (as a vermifuge) and grows wild sparingly at Jiracasaca and Onaca, 2500 ft. Specimen collected near Jiracasaca, Sept. 29. Full set.

542. Chenopodium ambrosioides L.

A diffuse shrub, 3 ft. Cultivated (as a vermifuge) and grows wild sparingly, at Jiracasaca and Onaca, 2500 ft. Specimen collected at near Jiracasaca, Sept. 29. Full set.

543 Heliotropium strictum H.B.K.

Common on open grassy hillsides and a weed in clearings, ^{and waste lands} below 3000 ft. Flowers principally June-Dec.. Flowers white. Specimen is from a clearing near Masinga about 400 ft. Aug. 25. Full set, fairly good.

544 Heliotropium curassavicum L.

Erect or ascending; leaves succulent, glaucous. Common locally on the seashore and on plains near the sea, argillaceous soil. The specimens are from Cienaga, Sept.

This species, like several others of coast plants, forms dense clumps, sometimes covering several square yards. Full set, good.

545 Priva lappulacea ~~Certosa~~ (L.) Pers.

Erect, to 2½ or 3 ft. but flowers at 6 inches; the larger plants branch dichotomously several times. Flowers white. A common weed in clearings and on waste lands below 3000 ft. Specimens collected near Bonda, 150 ft. Nov. 10. In damp localities this (and many other annuals) germinates and flowers at any season; in dry localities only during the rains. Full set. Full set.

546 Polygonum ~~portoricense~~ Berters. (=547, -1500)

546 7 2 ft. Growing in swampy pools near sea-level, 2 miles east of Cienaga, Sept. 11 Full set.

547 1-2 ft. (= 1500)

Local in pools, river-mouths, etc. near the sea at Santa Marta, Cienaga etc. Grows in water or on wet sand and mud subject to overflows. ^{from} Santa Marta, Sept. 1, on the banks of a river. Appears to differ from No. 1500 by dotted calyx. Full set, scant and not very good.

~~548. -Erect, -Commonly-without-branches, -to-18-or-20-ft, ----~~

548 Ammania pedunculata Rusby sp. nov.

Erect, Commonly without branches, to 18 or 20 inches. Swampy lands near Cienaga and not very far from sea-level, Sept. 10. The plant commonly grows with its roots in the water of shallow ditches or pools. I

neglected to note the color of the flower. My specimens agree in having flowers with short pedicels. 15 specimens.

549

Ammania senegalensis Lam.

Erect 12-24 inches; Local on irrigated land near the coast at Cienaga, growing in or near water in sheltered places. Collected Sept. 10. Full set, a little scant and not very good.

550 Mollugo verticillata L.

Erect, 6-12 inches. A common weed in waste places below 3000ft.; found on open, grassy hills, sandy seashore etc. Specimens are from Bonda, 150 ft. Aug. Full set, fairly good; a few have no roots.

551 Capraria biflora L. (=1331, 2323)

Erect, with few or no branches, 1-2½ ft. Local on damp and generally shady ground below 1000 ft. and especially near the coast. Flowers July-Nov. (or later?) white. Specimens are from the coast at Don Jaca, Sept. 14. Full set.

OK-8

552. Sclerothrix fasciculata Jacq.

Erect, branching to 2-3 ft. Rare in clearings, 2000-3000 ft. Flowers Sept. -Nov. Specimens is from Jiracasaca, 2500 ft. Sept. 29.

Full set, good.

553

(not named)

Erect ~~or~~ with ascending branches from a trailing and rooting stock, 1-2 ft. Low plains near the sea at Cienaga, Don Jaco etc., in damp and generally shady places; rather rare. Specimens are from Cienaga, Sept. 12, The color of the flowers was not noted. Full set, scant, and specimens too small, but good.

6K-5

554 Milleria quinqueflora L.

An herb, erect, branching, to 4 ft. Local and moderately common in damp clearings, 2500 ft. to sea-level. Flowers Aug.-Nov. orange. Specimens are from near Mamatoca, 100 ft. Nov. 9.

555 Clibadium asperum

Herbaceous. Erect, branching, 2-4 ft. Common locally in damp clearings, 2000-3000 ft. and occasionally on alluvial or irrigated land nearly to sea-level. Flowers Sept.-Nov. Specimens are from Jiracasaca, 2500 ft. Sept. 29. Full set, good.

556 Drymaria cordata Willd.

Trailing, 1-3 ft. (upright or diffuse when young) Local on wet rocks, walls etc. in shady places but not in the forest; 2500 ft. to sea level. In favorable localities it sometimes covers the rocks. Specimens were collected near Bonda, 200 ft. Aug. 13, on wet, shady rocks near a stream.

Full set.

557

(not named)

557 Local on damp banks of the open land, 2000-3500 ft. Specimens are from Jiracasaca, 2500 ft. Sept. 25. Full set; 5-10 on a sheet.

558 Evolvulus nummularius - L. nummularius L.

Observed only in the streets and outskirts of Masinga, 250 ft. on damp banks. Flowers Oct.-Nov. white. Collected Oct. 18. 20 specimens.

559 Jussiaea Peruviana L.

Suffruticose. Erect, 3-6 ft. Common locally on wet ground and near water from 2500 ft. to sea-level. Flowers more or less throughout the year. Specimens collected near Bonda, 250 ft. October.

Full set, but some are poor.

560 Mesosphaerum pectinatum (L.) Kuntze.

Erect, branching, 4-6 ft. Flower small, whitish. Common in the dry forest region below 2000 ft. generally in clearings and open ravines. Flowers Oct. -Nov. Specimens were collected near Bonda, 100-200 ft. (stet) Nov.

Full set.

561 Mesophaerum suaveolens (L.) Kunth. = 1365, 1366

Herbaceous, erect, 3-5 ft. Common locally on open, damp ground below 1500 ft. Flowers Oct.-Dec. purplish blue. Specimens are from Masinga, 250 ft. Oct. 25. Full set, good.

562 Salvia hiptoides Mart. et Gal.

Erect, Common locally in damp and sheltered places on the open lands, 500-2500 ft. Flowers in Nov. bright blue. Specimens were collected near Masinga Vieja, about 800 ft. Nov. 11

Full set.

563.

Local and rare on damp ground below 1500 ft. erect or ascending, to 1 ft. Flowers Aug.-Oct. light blue. The whole plant is very viscid so that it is

563

Local and rare on damp, open ground below 1500 ft.; erect or ascending, to 1 ft. Flower light blue. Flowers Aug.-Oct. The whole plant is very viscid, so that it is difficult to get good specimens.

The specimen with a large root is from Bonda, 150 ft. Sept. 24; the others from Escalera de los Indios, 800 ft. Aug. 21.

Full set, mostly poor. Occurs near Onaca.

564. Ocimum micranthum Willd. (is this 564 ?)

A small shrub, generally about 1 ft. high. Common in dry forest clearing and open lands below 3000 ft. Flowers more or less through the year. Specimen is from Bonda, 150 ft. Aug.

Full set; might be improved.

565 Erect, branching, to 5 or 6 ft. Local and rather rare in clearings below 500 ft. (not observed above that level) Flowers Aug.-Oct. Specimens collected near Bonda, 150 ft. Oct. 6 Sesamum ludicum L. #565

24 specimens; some not very good.

566 Beloperona Carthaginensis Nees.

Suffruticose (or herbaceous) erect, 2-2½ ft. Common in shady and somewhat damp places of the dry forest region, below 1500 ft. Flowers Oct.-Dec. rosy. I found it flowering on irrigated land at Cienaga, near sea, Sept. 7. The largest specimen is from Bonda, 150 ft. Oct. the other from Cienaga, Sept. 7. Full set. Poor.

567

(not named)

(var. of 379 ?) A shrub, 3-6 ft. Local and rather rare in the dry forest region, below 1000 ft. generally in open ravines. Flowers Sept.-Dec., scarlet. Specimens are from an open ravine 5 miles North of Bonda, about 100 ft. Oct. 22. This shrub has quite a different appearance from No. 379, and the distinction of calyx, downiness etc. appear at first sight, quite obvious; but some of my specimens show a tendency to connect the two. Full set, good.

568. Parsonsia strigulosa (H.B.K.) Rusby

Erect, 1-2 ft. Flower rosy. A common weed ~~on in open, growing grassy~~ on open grassy hillsides, clearings etc. below 3000 ft. Blossoms May-Jan. and probably more or less throughout the year. Specimens are from near Masinga, 250 ft. Aug. Full set. Too small and many are poor.

569

(not named)

Diffuse (erect when small) to 2 ft. Local in clearings and forest, on damp ground, below 1000 ft. Flowers July-Nov. red. Specimens were collected near Bonda, 150 ft. Oct. 15. Full set.

570 Cissus sicyoides L. -1319 -2724

A trailing and climbing herb, to 6 ft. Thickets on damp ground near Mamatoca, 100 ft. Aug. 12 specimens, scant.

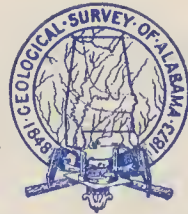
~~571-Boerhaavia maxima (L.) Boerhaavia~~

571 Boerhaavia scandens L.

A diffuse, semiscandent ~~shrub~~ herb, 5-6 ft. Common in thickets on damp ground near the sea. Flowers greenish-yellow. Specimens are from Santa Marta, Sept. 15.. Full set.

572 Kallstroemia maxima (L.) T. et G.

Trailing, 1-2 ft. A common weed in clearings and waste places below 2500 ft. Flowers more or less through the year, pale yellowish varying to deeper yellow. Specimen is from Bonda, 150 ft. Nov. Full set.



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EUGENE A. SMITH, STATE GEOLOGIST, DIRECTOR
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585 Lantana trifolia

Suffruticose, 2-4 ft. Common on open lands, and locally in clearings, below 2500 ft. Flowers more or less through the year, lilac. The fruiting specimen is from open land near Cacagualito, 1600 ft. May; the other from Bonda, on irrigated land, 150 ft. July Full set, but not very good.

586 Shrubby, often diffuse, 3-5 ft. Lantana caracasana H.B.K. 586

Occasional in dry, open situations, 2500 ft. to sea-level. Flowers July-Jan. white. Specimens are from near Bonda, 200 ft. Oct. Full set, but not very good.

587 Lippia origanoides H.B.K. or (ariganoides?)

Shrub. 3-8 ft. Common in dry, scrubby growth on rocky (sometimes sandy) land near the sea, or a few miles inland, at Santa Marta, Cienaga, etc. Flowers Sept.-Oct. white. 10 specimens.

588 Valerianodes orubicum (L.) Kuntze.

Shrubby, (with a well-developed woody stem, often 1 inch in diameter) or suffruticose, 2-6 ft. very common on open hillsides and in clearings and waste lands below 2000 ft. Flowers May-Dec. very dark purple. The flower spikes are at length 18-24 inches long. Specimens are from Bonda, 150 ft. Aug.

589 Jaegeria hirta Less. ? (dwarfed specimen),

from Las Nubes, already sent in before.) Specimen from Onaca, 2500 ft. Dec. 1 In a damp clearing. It is found locally in clearings, generally at about 2500 ft. Grows to 2 1/2 ft. Full set, good.

589 Las Nubes 4500 ft. A few roots found in a clearing, moist soil near water, Dec. 18.

590. Melampodium divaricatum (Rich.) DC. (=514)

Abundant at Jiracasaca, 2500 ft. in damp clearings Sept. 25-30. Also observed at Onaca and Minca, about the same altitude, Oct-Nov.

Upright, branching, 1-4 ft. The ray-flowers are shorter than in No. 514, and the color is deeper, rather orange than yellow. Full set, fair.

591 Spilanthus Acmella L.

Clearing near Mamatoca, 100 ft. Oct. 29. 2 ft. 7 specimens, poor.

591 (already sent in) Specimen from a swampy thicket, alluvial land near Masinga, 200 ft. Nov. 13. I send the whole plant to show the habit, which is quite different from that of allied species. The species is rare.

592 Galinsoga parviflora Cav.

Common in damp clearings at Jiracasaca, 2500 ft. Sept. 25-30. Upright to 2 1/2 ft. Ray flowers whitish. Full set.

593 (not named)

Upright, branching, 2 ft. Observed only at Rio Frio, (near sea-level) wast open places near the railroad station, Sept. 12. 7 specimens.

594 (not named)

Shrub, 1-3 ft. Seashore, on dry rocks and occasionally on the sands at Playa Braba, also observed on rocks by sea at Santa Marta Nov. Good, full set.

594 11 additional spec'ns and specimens to work in with numbered sheets.

594 Specimens from Playa Braba, Oct. 26. The species is common along the northern coast flowering Sept.-Nov. It forms a low, generally spreading shrub, to 3 or 4 ft. Generally the plants grow in-water on rocks; in sand situations the leaves are longer and not so blunt.

Don Amo, June 18; scandent.
(This slip comes next to 594 and I think generally (if not always) these unnumbered slips belong to the preceding number. Don Amo has the same situation as Playa Brava.)

595 Wullfia stenoglossa DC.
A diffuse shrub, 5-6 ft. Common near Cacagualito, 1500 ft. in open places in the woods. Observed also at Campo Alegre, 2000 ft. May-Nov.

Full set. Mostly good. This species is the Buritaca var. The Cacagualito one is more hairy and more pointed leaves.

595 (already sent in) A specimen from Cacagualito, 1500 ft. Nov. 15. This species is common in the forest region adjoining the coast, 30-50 miles east of Santa Marta, and inland to 2000 ft. It is nearly always scandent, growing to 10 or 12 ft. The ray-flowers are often aborted. 595 a variety from Buritaca, thickets by the seacoast, Sept. 23.

596 Calea caracasana (H.B.K.) Kuntze.
Las Nubes, 4500 ft. Dec. 18. clearing, hillside, 3-4 ft. somewhat diffuse. Ray flowers white. Full set, good.

597 Tagetes deduncularis Lag. (?)
Common on campo land and in dry thickets, 1000 to 3000 ft. or higher. Growing among long grasses it has a slender form, but in favorable situations it is a compact little shrub with numerous branches, and not over 18 inches high. Flowers Nov.-Dec. Good, full set.

598 Bidens leucanthe Willd.
Branching, 3 ft. only one root seen, at Las Nubes, 4500 ft. damp ground in clearing, Dec. 18. 18 specimens, some scant and most without fruit. The fruit is somewhat similar to that of No. 599, but is more costate.

599 Bidens pilosa L.
Local at about 2500 ft. in clearings; grows to 3 or 4 ft. The two larger specimens were collected at Onaca, 2500 ft. Jan. 12; the smaller one at the same place, Aug. 18.

599 (already sent in) Specimen from Jiracasaca, 2500 ft. Dec. 23. Between 2000 and 4500 ft. this is the common flower species. The leaves vary greatly in the form of the leaflets, dentate margin etc. and in being simple or trifoliate, or divided into 4 or 5 leaflets.
Full set, all with fruit. Leaves not very good.

600 Bidens bipinnata L. (=601)
Common in clearings and dry woods below 3000 ft. flowering July-Nov. (better specimens will be sent later)

600 (a poor specimen sent in before)
Specimen collected near Bonda, 150 ft. Nov. 16. The species sometimes covers the ground in damp clearings, and is a great pest owing to its hooked achenia which attach themselves to clothing. The flower is yellow. Full set; good but only 8 have fruit.

Bidens bipinnata #601. L. (=600)
Occasional in forest near clearings below 2000 ft. country inland from Santa Marta. Flowers in Nov.

5 specimens.
Bidens bipinnata #601. (already sent in)
Specimen from boggy, open land, 3 miles South of Mamatoca, 100 ft. March 6. Apparently this is merely a fine-leaved dwarf variety of No. 600. I found many plants in the locality mentioned above, and none were over 1 ft. high.

602 Cosmos caudatus Kunth.

Rare in clearings below 3000 ft. Bonda, Onaca etc. July-Aug. Ray flowers purplish.

602 (already sent in) Specimens from the El Libano Plantation about 100 ft. Feb. 3. (This is the banana plantation on the railroad between Santa Marta and Cienaga; the El Libano coffee plantation is on the Sierra del Libano.) As this plant has rather a showy flower and as I have found it only about old plantations, I thought at first it might have run wild from gardens. It does not appear, however, that the species is cultivated, and to all appearance it is indigenous. It is local and rare.

Good, full set.

603 Achyrocline mollis Benth.

Erect or ascending or decumbent, 2-3 ft. A common plant of the open lands 1500-4000 ft. Flowers Nov.-Jan. Specimens were collected near Onaca, 2500 ft. Dec.

604 Gnaphalium poeppigianum DC.

Erect, branching, 2-4 ft. open lands, 2000-6000 ft. ^{Less} common than No. 603 and rather local. Flowers Dec.-March. Specimen is from Onaca, 2500 ft., Dec. Easily recognized by its larger and white flower buds. Specimens from Sierra del Libano sent to N.Y. and Carnegie.

Full set.

605 Gnaphalium purpureum L. (one sheet a new species) See 606. Labels not sent. Probably new.

Las Nubes, 4500 ft. Dec. 15; Common in a clearing.

In all my specimens the leaves are larger than those of No. 606, the flowers are gathered toward the top of the plant, and the involucreal scales are colored. 6 specimens.

606 Gnaphalium purpureum L.

Erect to 2 ft. Common on open, dry grass lands, 3000-5000 ft. Flowers Oct.-March. Specimens are from Las Nubes, 4500 ft. Dec. 1-15.

10 specimens Dec; mostly top young. var. from Las Nubes sent to N.Y.

607 Eupatorium iresenoides H.B.K.

A straggling shrub, to 4 ft. Rocky hills by the seashore near Playa Brava, Feb. 9. Flowers pale yellowish. The plants were going out of bloom and I obtained only a few poor specimens.

Full set.

608 Gomphrena globosa L.- 608

Dry clearing near Bonda; rare. Flowers Oct.-Jan. Perhaps introduced but the species as far as I know is not cultivated. Specimen was collected Oct. 9; 3 specimens.

609 Gomphrena globosa (-608)

Cultivated. Naturalized at Onaca, 2500 ft. in clearings, Dec.

No specimens except for N.Y. and Carnegie.

610 Elephantopus angustifolius Sw.

Open grass-lands, 1000 -4000 ft.; wide spread but nowhere abundant. Flowering plants are seen throughout the year, but especially Oct.-Dec. The specimen is from Jiracasaca, 2500 ft. Dec. 22.

Full set, good, but some lack roots and root leaves.

610 Specimens to work in with the numbered set.

611 Frolichia lanata Moq. (1 do not find label.)

changed from Trichilia lanata

612 Stevia nepetifolia H.B.K. "ask Dr. Rusby to look up a later specimen sent with this number. Originally 2 specimens- were put here; one was referred to 1996 and is the true S. nepetifolia"

Onaca, 2500 ft. Dec. I sent in specimens under this number but included two essentially different species. The leafless ones all belonged to an another species, No. 1996; and I find one or two of that species with 1

--72--

with leaves mixed with No. ⁶¹²~~612~~ I send a new specimen to mark the species. As I remember, this is a smaller plant than No. 1996, not over 2½ ft high. Flowers white. Full set; scant and poor.

612 *Onaca* 2500 ft. in clearing, hillside. Dec. 1-15 Upright, branching 3-4 ft. Flowers whitish. The flowering plants are often leafless or nearly so. Probably a campo species.

613 *Vernonia scabra* Pers.

Erect, branching towards the top, 3-5 ft. campo, 1500-3000 ft. at Onaca etc. Local and not very common, beginning to flower about Dec. 15. Flower whitish. (1 specimen is from campo near Onaca, 2000 ft. Full set, Moulded and cleaned.

614 *Eupatorium amygdalinum* Lam.

Erect 1½ ft.-3 ft. Local and rather rare, campo near Onaca, 2000-3000 ft. Begins to flower about Dec. 15. Flower purplish blue.

Full set, fair. Leaves only had moulded a little. 614. Specimens from Campo Alegre 2000 ft. Jan. 3.

615 Shrub 4-5 ft. *Eupatorium pulchellum* H.B.K.

Shrub to 4-5 ft. Las Nubes, 4500 ft. Observed only in one place, hillside, open land, edge of forest Dec. 18.

Full set; it had moulded but is pretty good.

615 (%buds)

616 Shrub, 3-5 ft. not named.

Campo 2000-3000 ft. Local at Onaca, near Minca, etc. Specimen is from Onaca, 2500 ft. Dec. 20. Full set, but petals were badly eaten; specimens were not good and some scant.

617 *Eupatorium ivaefolium* L. (=533)

Shrubby, 1-2½ ft. with a strong, deep root. Common in clearing at Onaca, Dec. 1-15 (2500 ft.) Also observed in clearing at Las Nubes, 4500 ft.

Dec. 18. Fl. pale blue. Full set; not very good. Many flowers not well developed

Terminal (terminal?) varieties and roots sent to N.Y.

618 *Leptilon linifolium* (Willd.) Rusby. (= 619, 620, 2009.)

Erect, 2 ft. Clearing near water, Bonda, July 15.

No specimens except one for New York.

619 *Leptilon linifolium* (Willd.) Rusby. (-618)

Upright, 3 ft. Occasional in clearings below 2000 ft. July-Aug. Cacaguaito, Bonda, etc. Grows at Don Diego, clearing.

619 Dissecting Material Material. 5

The species is rare and I have not observed it above 1500 ft. I have flowers collected in Feb. The broad-leaved specimen may perhaps be distinguished, at least as a variety; but I have only one other specimen and retain the form provisionally under this number. If it proves eventually to be separable, the number 619 may be retained for the narrow-leaved form. 5 specimens.

620 *Leptilon linifolium* (Willd.) Rusby (=618) (see label)

Upright, 1-3 ft. Las Nubes, 4500 ft. Dec. 18. Common in clearing, hillside.

620 (already sent in?) A specimen from a damp clearing, Sierra del Libano 6000 ft. Jan. 22. Grows to 5 ft. Flowers white.

Under this number I confounded two species or varieties, one of which I have now separated as No. 2009. One or both may have been sent in under this number. If there was a "mix" this specimen will serve to mark the species, No. 620 Full set. Most of the specimens had moulded badly and were more or less injured in cleaning.

622. Brickellia diffusa Vahl.) Gray

Locally common in clearings, damp thickets etc. below 2000 ft. Bonda, road to Onaca etc. Nov. Dec. Upright, branching towards the top, 3-5 ft. Full set, fairly good.

622 A specimen collected near Bonda, Jan. 5.

622 Dissecting Material The species ranges to 4500 ft. or 5000 ft. Blossoms principally in Jan.

623 Somewhat diffuse, 2-3½ ft. Common at Onaca (2500 ft.) in clearing and on campo land; also observed at Jiracasaca, Cacagualito etc. Occasional near sea-level (Bonda etc.) in damp places near water. Flowers in Dec., rosy purple. Specimens are from Onaca. #623 Ageratum Mexicanum Sims.

?624-(This was referred to 326)

623 Dissecting Material. Dried plants of this species somewhat resemble No. 522, but the growing plants have a very different appearance. No. 522 always appears slender, generally the growth is straggling, and the flower-heads except on close inspection, look green. No. 623, owing to the numerous branches from one root, appears compact, and, in bloom, the mass is covered with conspicuous rosy flowers. No. 623 is pretty common below 5000 ft., but blossoms later, in Jan.

Full set. Some had moulded but specimens cleaned.

624 Eupatorium molle, Sw. (This was referred to 326.)

Eupatorium molle Sw.

625 ~~Eupatorium molle~~-Sw. Upright, 4-5 ft.

Occasional in thickets near water at Las Nubes, 4500 ft. Dec. 15-20

625 (already sent in) A variety from Valparaiso, 4000 ft. Jan. 21. This form is common along ravines in the forest. It is erect, with a rather slender stem, sometimes 8 or 9 ft high. The lower leaves are sometimes 1 ft. long, and the leaf-margins, especially those of the upper leaves are commonly repand or entire. Probably the form of leaf is due to the situation, as these plants were collected in shady, damp ground, and the ones from Las Nubes sent in before, in an open ravine. The species is pretty common, 4000 -5000 ft., nearly always near water, flowers white.

Full set, pretty good. (from Valparaiso)

626 Schistocarpus paniculata Keatl.

Upright, 3-4 ft. Occasional in clearings, thickets etc. 1000-3000 ft. at Onaca, Campo Alegre, Minca etc. Oct.-Dec.

Good, full set. Some had moulded slightly.

?627 Ageratum conyzoides L. No specimens, no label.

628 Eupatorium macrophyllum L. -629

Upright, 3-4 ft. Dry forest, near Campo Alegre, 1500 ft. Oct. 26.

629 Eupatorium macrophyllum L. -628

Common in damp clearings, 1000 -5000 ft. at Cacagualito, Onaca, Las Nubes Nubes etc. Occasional in ravines near sea-level. Upright, 4-5 ft. with few branches. Flowers May-Dec. (specimen is from Onaca, Dec. No. 628 is an imperfectly developed form, and the number must be suppressed. Flowers greenish, full set, pretty good, some had moulded a little.

Flower greenish. Full set, pretty good; some had moulded a little.

630. Willoughbeia leiostachya (Benth.) Kuntze

Twining, over trees, 25-30 ft. Forest near Onaca, about 3000 ft. Dec. 23. Two or three seen. 20 specimens. poor and flowers not out very well. (on dissecting label) Probably a more hairy var. of 914

Willoughbeia tenax (Sch. Bip.) Rusby

74--

Twining, 15-20 ft. Thickets near stream and in forest, Las Nubes, 4500 ft.
Dec. 18 Several were seen. Full set, good.

632 Willoughbeia Imrayana (Griseb.) Kuntze.

A twiner, forest near stream, Las Nubes, 4500 ft. Dec. 16. Only one seen and only one branch in flower.

632 Las Nubes (a twiner with large head of flowers.)

633 Willoughbeia Houstonia (L.) Kuntze.

Twining 15-20 ft. Thickets and forests near stream. Common at Las Nubes, 4500 ft. Dec. 17. The lower leaves are but little larger than those on the specimen and conform. Full set, good.

634 (not named)

Twining 15 ft. Thicket near stream Las Nubes, 4500 ft. Dec. 16. Rare. No specimens. Full set.

634. Specimen from Las Nubes, 4500 ft. Dec. 12. I have never found the species except in this locality.

635 Willoughbaea angularis (H.B.K.) Kuntze -915 (already sent in) A var. of No. 915. Vine to 25 ft. It is rare in damp forest, ranging from 4000 ft, nearly to sea-level. The leaves are generally rounded, though angulated ones occur occasionally. These specimens were collected below Valparaiso, 4000 ft. Jan. 18, and I have the same ~~from~~ ^{from} Rio Naranja 400 ft. Don Amp, 1500 ft. etc. The specimens originally sent in under this number were of an intermediate form, the leaves being slightly angulated or rounded; I had not meant to give it a number, but did so through an oversight. To avoid suppressing the number, it may be retained for this variety. I have found the intermediate form only at one place, Onaca. Full set, fine.

636 ~~Add to set.~~ Eupatorium odoratum L. ? (see-945/637) (-506)

Shrubby, more or less diffuse, with long branches. Common on campo and in clearings, 1500 -5000 ft. at Onaca, Campo Alegre, Las Nubes etc. Flower light blue. Flowers in December. The broad specimen is from Las Nubes, 4500 ft. Dec. 16. The other is from the campo at Onaca, 2500 ft. Dec. 19. Full set, but about half are poor and had moulded.

636 Dissecting Material. This is divisible into two varieties, one with small leaves which are not toothed. At present I leave them under this number. The flower is generally pale blue, sometimes white.

~~637 -Eupatorium odoratum -L. ? - (see-636) - (-506)~~

I feel pretty sure that there are at least half a dozen very closely allied species or varieties of Eupatorium. My collections so far are scant and not very good; later I hope to make careful collections in this group. At present my numbers are provisional.

638 Willoughbaea cuneata (Sch.) Kuntze ? A loosely twining vine, common in thickets and clearing, especially near streams, at Las Nubes, Dec. 16. Just beginning to flower at this date. 4500 ft.

638 Dissecting Material. In my collections two species or varieties were included under this number; one I have separated (No. 2004) My number-label was attached to a specimen of this form, but I may have sent the other also. In 638 the leaves are long and generally tapering. generally toothed, and not very hairy beneath, and the involucral scales are broad.
3 specimens. All specimens had moulded badly and are immature.

639 Willughbeia scandens (~~525~~) Kuntze. =526)
Twining and trailing over trees- bushes, 5-6 ft. Open place in forest by stream, 6 miles south of Mamatoca, 300 ft. Nov. 20

639. (immature specimens already sent in) Specimen from Calavasa, 600 ft. Dec. 28. The species is common below 1500 ft. generally in thickets near streams. Flowers white. Full set, good.

637 Eupatorium odoratum L. (see 636) (=506)
Shrubby, diffuse, 3-6 ft. Campo near Onaca, 2500 ft. Dec. 6 Also absent in dry forest 300 ft. 3 miles South of Mamatoca. Flower light blue (variety of No. 636?) No specimens except for N.Y. and Carnegie.

640--639-

Between 638 and 639 I have just seen this name in pencil W
Willoughbeia Guaco H.B.K. Kuntze

624 This was referred to 326; the label was misplaced, but I will put it in here.

Shrub, 4-5 ft. Las Nubes, 4500 ft. Clearing, edge of forest, Dec. 20
(only three or four seen) 19 specimens, some scant. Had moulded slightly.

640 640 Low lands near Rio Frio, Sept. 13. Twining, 6-8 ft. =639

640 Dissecting Material. I retain this number provisionally, but am not at all sure about the species, my three or four specimens being poor and immature. No specimens except for New York and Carnegie.

641 Baccharis cinerea DC. =644?

A scandent shrub, 5-10 ft. Occasional in thickets and forest by streams, 1500-5000 ft. at Campo Alegre, Las Nubes etc. Flowers in Dec. (The large specimen is from Las Nubes, 4500 ft. Dec. 16. The smaller from Campo Alegre, 2000 ft. Nov. 20

641 (specimens with [♀] flowers already sent in) ♂ specimen from Valparaiso, 4500 ft. March. This species ranges from 2000 to 6000 ft., but is not common. It is diffuse, rarely scandent, sometimes erect when small and generally not over 5 ft. high. Flower white.

642 is, apparently a variety, but I sent in my only good specimen and have only a poor one to mark the number.

Full set, ♀ and ♂ flowers. Specimens had moulded and were imperfectly cleaned.

Pers.

642 Baccharis trinervia (Lam.) Diffuse, 6 ft. Las Nubes, 4500 ft. Dec. 3.

643 Baccharis trinervia (Lam.) Pers.

Diffuse, shrubby among bushes in a clearing, 8 ft. Bonda, Aug. 13, 150 ft. (a belated flower; only one seen) Same as 644? Only one poor specimen sent to N.Y.

644 Baccharis cinerea DC. (=641? Is it not 643?)

Upright or nearly so, branching 5 ft. Clearing, Onaca, 2500 ft. Dec. 20

644 (poor specimen already sent in) Specimen collected in a thicket near Masinga 250 ft. Feb. 16. A common species below 3000 ft. blossoming principally in Jan. and Feb. Small plants are erect or decumbent; but when well grown it is subscandent, with a slender stem, often 10 or 12 ft. high. Probably No. 643 is the same.

Good, full set, some in each sheet had moulded and were cleaned.

All ♀ flowers.

645 Pectis prostrata Cav. -647)
Procumbent, Campo, dry hillside, near Escalera de los Indios, 1000 ft. Aug. 2
Rare; same as 647.

646 Pectis prostrata Cav. -647
Rare on rocks, river-shore at Bonda, Aug. 3. Procumbent. Same as 647.

647 Pectis prostrata Cav.
647 Common locally on campo and in clearings below 1500 ft. flowering
freely, Sept.-Oct.; procumbent or nearly upright, 3-12 inches. Specimens
are from near Masinga, 200-500 ft.
Full set, scant and many not in good bloom.

647 Dissecting Material. Nos. 645 and 646 are casual varieties, due to ~~si~~
situation, and the numbers must be dropped.

647 Add to the numbered sheets.

648 (not named)
Shrub, 3-5 ft. Common on campo, 1000-3000 ft. flowering in Dec. (Speci-
mens are from Onaca, 2000-3000 ft.) Good, full set.

649 Tridax frutescens P.Br.
Shrub, 3-5 ft. Common on campo A more or less diffuse shrub, 1-5 or
6 ft. Local in campo thickets and open places in dry forest below 1500 ft.
flowering in Dec. (Specimen is from the forest 6 miles E. of Bonda)
Full set. Pretty good; mouldy ones nearly all thrown away.

650 Tinantia fugax Schied.
Las Nubes, 4500 ft. Dec. 5. Clearing, hillside. Growing to 3 ft. (only one
seen) No specimens except a poor one for Carnegie, N.Y.
650 Las Nubes, Open hillside, Dec. 5

651 Vernonia scorpioides Pers. Near Cacagualito,
1500 ft. June, a shrub. The pappus, in fresh specimens is rosy.

651(already sent in) Specimen from Campo Alegre, thickets, border of
forest, Feb. 1. This form seems very well characterized; it is rare but
I have specimens from several localities, 1500-2000 ft., and the habit,
form of the leaf, etc. are quite constant. It is erect or sometimes ~~decu~~
decumbent, 3-4 ft. high.; all the plants I have seen were on open land
or in thickets close to the forest. No. 652, no doubt the same.
22 specimens, many poor or scant.
652 =651?) (var. of 651) upright, 4-5 ft. Occasionally in thickets and
clearings, 1500-5000 ft. flowering Nov.-Dec. (specimen is from Campo
Alegre, about 2000 ft. Nov. 20)

Onaca Dec. 26 upright, 5 ft. Clearing.

653 =657 ? Vernonia arborescens Swz.
Shrubby, 6 ft. with long, spreading branches. Road from Mamatoca to Finca,
edge of forest, about 2000 ft. Nov. 22. Full set. Some not good ~~65-1996~~
and more or less intermediate with 657

653. Specimen from the Agua Dulce Road, dry forest, about 1000 ft. Jan. 7.
Flower pinkish. The plant has long diffuse branches.

653(already sent in) A specimen from the Agua Dulce Road, about 1500 ft
Jan. 17. This form is subscandent, sometimes to 8 or 10 ft. but I doubt
if it can be separated from No. 657, except as a variety. The leaves of
No. 653 are generally less rugose than those of No. 657; but smooth and
rugose leaves occur on the same specimen in both forms. Intermediate ~~fe~~
forms are found.

OK. S

654. Vernonia Solzmanni DC. No label; no specimens.
 654 Scorched branches, Nov. 15 10 ft.
- 655 Vernonia Solzmanni DC.
 A diffuse shrub, 6-8 ft. Thickets damp hillsides, Campo Alegre. Nov. 20
 12 specimens, poor.
- 656 Vernonia Aschenborniana Schum(?) Vernonia scabra Pers. (corrected)
 A spreading shrub or small tree, 6 ft. Occasional in waste places below
 3000 ft. Flowers in January. (The specimen, with a belated flower, is
 from swampy ground near Bonda, 200 ft. Aug. Good specimens will be sent
 later.)
- 656 Specimens from old clearing on the road from Bonda to Don Amo, Jan. 17
- 656 (already sent in) Specimen collected near Cacagualito, 1500 ft. Jan.
 The printed label was attached to an imperfect specimen of this form;
 but I also sent another and better specimen, which may have been this or
 another species or variety, which I have separated as No. 1998. The form
 of the leaf in this species or variety is quite constant, but the pu-
 bescence varies, and sometimes the leaf is nearly glabrous except on the
 midrib. 2 specimens.
- 657 Long-leaved variety, Onaca, Dec.
- 657 Vernonia arborescens Swz.
 A shrub with long, diffuse branches 3-4 ft. Common on campo and in clear-
 ings, 1500-5000 ft. flowering about Dec. 10-30 Specimen is from Onaca,
 2500 ft. Dec. 15. Flower rosy. Full set.
- 658 var. of No. 63 -505 (not named)
 The scales are larger. Thickets below 3000 ft. (specimen is from near
 Onaca, 2500 ft. Dec. Number suppressed So stated on label of dissecting
 material of 505.
- A forest species on edge of forest. Grows to 4 ft. Early part of Aug.
 659 Bonda.
- 659 (variety?) Dry forest near Bonda, Aug. Not named.
- 660 (buds already sent in) (not named)
 Specimens from Las Nubes, 4500 ft. Feb. 7 This species is always scandent,
 (loosely twining and supported by surrounding shrubbery) and grows to 10
 or 12 ft. It is common from 4000-6000 ft. generally in thickets near
 streams. Flowering principally in Jan., white or pale purplish.
 Full set, good.
- 660 A vine or very diffuse shrub, Las Nubes, 4500 ft. thickets along a st-
 ream, Dec. 18 (in bud only) (Not named.)
- 661 (not named)
 Shrub with long diffuse branches, 4-10 ft. Open lands and thickets, Oc-
 sional from 4500 ft. to sea-level, at Las Nubes, Onaca, Bonda, etc.
 Begins to flower about Dec. 25.
 Full set, passable and some good, but about half the specimens had
 encysted mould.
662. No specimens; no label.
663. Conyza Chilensis Spr.
 Upright, 2-3½ ft., Occasional in hillside clearings at Las Nubes, 4500 ft
 Dec. 16. Occurs rarely at Onaca, Campo Alegre and Jiracasaca, 3000-3000 ft.

- 663 Dissecting Material. The species is found on open lands ~~or in clearings~~ or in clearings 1500-4500 ft. but is nowhere common. Flower pale yellowish. Flower observed Aug.-Feb. Full set, good.
- 664 Erechthites valerianifolia (Wolf, Dc. 508)
Upright, $1\frac{1}{2}$ - $2\frac{1}{2}$ ft. Common in clearings at Las Nubes, 4500 ft. Occasional at Onaca, 2500 ft. Flowers Nov.-Dec. (specimens are from Las Nubes, Dec. & 16 Pappus rosy.
- 664 (already sent in) Specimens from Manzanares, about 3000 ft. on damp ground. Full set. Some rather scant and a few had moulded and are imperfectly cleaned.
- 665 Erechthites hieracifolia (L.) Raf. Rare at Las Nubes, 4500 ft. in clearing, Dec. 17, Upright. 2 ft. Pappus white. Same as 666.
L. Raf.
- 666 Erechthites (already sent in) variety. from the Las Nubes Road, about 2000 ft. March 19 This species is No. 666 with a simple stem or branching only at the top, 2-3 ft. high. it ranges from 5000 ft. to the sea-shore on damp ground but is nowhere common. Flowers white. The leaves are very variable and may be truncate or tapering at the base on the same plant; the flower heads varying in size and the involucre is more or less scaly or smooth. No. 665 is clearly the same and the number must be suppressed; probably 667 and 668 are poorly developed forms.
Full set, some scant, Many had moulded and were cleaned.
- 667 Erechthites hieracifolia (L.) Raf.
Erect, $2\frac{1}{2}$ ft. Two specimens only seen, road to Onaca, 1500 ft. open place in woods, hillside. Aug. 26. var. of 666? No specimens except for N.Y.
- 668 Erechthites hieracifolia (L.) Raf. Rare, campo thickets, 2000-3000 ft. at Jiracasaca and near Minca (specimens are from Jiracasaca, Sept. 27
Probably an aborted specimen of 666. No specimens except for New York
- 668 Jiracasaca Sept. 29 Campo hillside only ones seen.
Road to Agua Dulce, edge of forest, 2000 ft. Nov. 22
- 668 Specimen from open lands near Onaca, Dec. 10. This is evidently not an aborted variety of No. 666, as I formerly supposed and stated in my note.
- 669 Eupatorium hebebatrya Hemsl.
Shrub, 6-8 ft. Occasionally in forest below 1500 ft. flowering in Dec. Observed near Masinga at Masingavieja, on road to Minca etc. Specimen is from woods on road to Onaca, 1000 ft. Dec. 20.
Full set; some are too ripe.
- 670 Neurolaena lobata (L.) B.Br.
Common locally in clearings, 1500-3000 ft. at Cacagualizo, Jiracasaca etc Upright, branching towards the top, 4-6 ft. Flower greenish. flowers Sept.-Dec. and beated flowers were found in May. Specimen is from Jiracasaca 1500 ft. Dec. 23. Full set, pretty good.
- 671 Verbesina gigantea Jacq.
Common locally on campo in thickets, clearing etc. 1500-3000 ft. and occasional in damp places nearly to sea-level. Upright, branching only near the top 6-8 ft. Flower white, Begins to flower about Dec. 15. Specimen is from Onaca, 2500 ft. Dec. 20 Flower heads, including the upper branches often found near 2 ft. in diameter. Good, full set.
- 671 Dissecting Material. No. 922 must be dropped. The character of the less divided leaves was due to an unhealthy condition of the plants; the same plants had leaves of the ordinary form in the ensuing year.

672 Eleutheranthera ruderalis (Sw.) Sch. Bip. (compare 535) **
Rare in dry woods, 6 miles South of Mamatoca, about 800 ft. Nov. 22
good, full set, but only a few roots. ** Eleutheranthera ovata Poit.

672 (already sent in) variety from Calavasa, 600 ft. Dec. 29, at this
place the plants are larger (18-24 inches) and have larger leaves; probab-
ly the more luxuriant growth is due to the damp situation. I think I can
see a slight difference in the Achenia.

This species is local but I have found it quite abundant in some
places below 1500 ft. generally shady ground in clearings or open forest.
Flower yellow.

672 Variety from a dry, open water-course, 5 miles north of Bonda, 150 ft.
Nov. 29; prostrate. A considerable number of plants found, all with the
same habit.

672, 673 Melanthera deltoidea Rich. (?) = 531 (Name crossed out)
perhaps a belated and aborted specimen of No. 531 (531) Shrubby 2 ft.
Open, damp ground near Bonda, July-Aug. 4 specimens.

673 (already sent in) Specimen swampy ground near Bonda, March 24, 200 ft.
A diffuse shrub or suffruticose plant, to 3 ft.

I have no doubt that this is a dwarf variety of No. 531, and there
are found forms which may be considered intermediate; but the variety,
in general, is constant and appears worth a number.
Clearing, low land Bonda, July 18.

674 Chaptalia nutans (DC.) Hemsl.
Occasional in clearings, and open places in forest, below 3000 ft.
Flowers Aug.-Sept. Dec. (specimen is from forest hillside on the Yroad
to Minca, about 1200 ft. Nov. 26) Full set.

674 Dissecting Material. Wide spread but nowhere common. Flowers may be
seen throughout the year. Flowers pale rosy or pink.

674 4 extra; "there were about 22, about half with roots."

675 Elephantopus tomentosus L.
A common weed in clearings, along forest roads etc. below 3000 ft. Com-
monly about 2 1/2 ft. high, but in damp clearings, I have seen specimens 5 ft
ft high. Flowers Nov. to Dec. Specimen is from clearing near Masinga,
Nov. 29. Flower white. Good, full set.

676 Rare on open damp hillsides, 2000-3000 ft. (not named)
near Onaca, beginning to flower late in Dec. (specimen collected Dec. 20)
Upright, with few or no branches, 3-5 ft.

676 (already sent in) Specimen from the Agua Dulce Road, about 1800 ft. Jan 7.
This species grows in dry woods, 1500-3000 ft, and is local and rather
rare. Flowers Dec.-March, red. I have seen a plant 6 ft. high, but generall-
ly it does not grow to more than 4 ft.
Full set but had moulded badly and was imperfectly cleaned.

677. Upright with few branches, 3-4 ft. Rare on open, damp hillsides,
clearing, Las Nubes, 4500 ft. Dec. 5-15. Ray flowers, white.
17 specimens, rather poor. (not named)

678. Isocarpha atriplicifolia R.Br.
Herbaceous, upright, 2-2 1/2 ft. Observed only in one place, and open
space in dry woods at Bonda, Nov. 27-Dec. 25. Full set, poor leaves.

679 Twining, 5 ft. not named.
Flower bright yellow, Observed only on a bank edge of dry forest near a s
stream, 6 miles N. of Bonda, near sea-level, Nov. 1. Full set, pretty
good but no fruits except for N.Y. and Carnegie.

679. Dissecting Material and fruit. The species appears to be very rare. I have collected it in dry forest 6 miles east of Bonda, 1000 ft. Nov. 15.

680 (not named)
A twiner, 5 ft. Flower pale yellow (or white?) Thickets at Mamatoca, 150 ft. October 15. Rare. No specimens except for N.Y. and Carnegie. No Dissecting Material.

681 Clitoria javitensis Benth.
Twining, 20 ft. Observed only on edge of forest, 3 miles E. of Masinga, Oct. 27. Flower white, vexillum with crimson blotches. No specimens except for N.Y. and Carnegie.

681 Fruit edge of forest 3 miles east of Masinga, 600 ft. Feb. 3 (flowers from the same vine already sent in) Specimens in every respect agreeing with those sent in (flowers and leaves) were collected in two or three localities near Masinga, 200-600 ft. Sept.-Jan. The flower is white; standard with a crimson blotch on each side. ~~682x~~

682 Bradburya pubescens (Benth) Kuntze.
Twining, 5-10 ft. Thickets, generally near streams, below 1000 ft. Local about Bonda and Masinga. Flowers lavender-colored with a deeper colored stripe on the vexillum. Flowers Oct.-Dec. or later.
Good, full set, about half with fruit.

682 (already sent in) Specimens collected near Masinga, 250 ft. Jan. This species is common on damp and generally shady ground below 1500 ft. flowering until March. The color of the fresh flower, is very constant, lavender or lilac, with a darker mark on the vexillum; it turns yellow as it wilts.

683 Bradburya pubescens (Benth.) Kuntze.
Forest near a stream 5 miles south of Mamatoca about 300 ft. Nov. 27. Abundant in one place, and seen in a few others for a mile along the stream. Twining, 5 ft. Flower white, base of vexillum rosy-purple.
In this and the allied species the buds, and to some extent the leaves catch on clothing or the skin like burrs. Full set.

683 Dissecting Material The flower is constantly white, with crimson line on the standard. The leaves are generally, though not always, hairy beneath, a character sometimes found in No. 682. No. 683 is much rarer the rarer form. In a swampy clearing 3 miles south of Mamatoca (100 ft) I found No. 683 associated with plants having lavender-colored flowers, the leaves in both being hairy and indistinguishable. (March 7).
I judge that 683 is a color variety of 682; but it is constant and worth a separate number. The color notes on both forms were taken from fresh flowers.

684 Bradburya vexillata (Benth) Kuntze.
Occasional in forest, road from Mamatoca to Agua Dulce, 500-1500 ft. Nov. 22-28 Twining, 10-20 ft. The flower is white with a crimson blotch at the base of the vexillum, precisely as in No. 683, which grows in the same forest. 16 specimens.

~~685 --- 1 additional~~
685 Bradburya macrocarpa (Benth.) Kuntze First name sent? No mark.
Bradburya brasiliensis (L.) Kuntze.

Twining, 10-15 ft. Occasional in forest, 2000-4000 ft., near Onaca and on road to Las Nubes. Flower white with a crimson blotch on vexillum as in No. 684; but in addition there is a bright green line at the juncture of wings of vexillum 19 specimens, with fruit.

685. (already sent in) Fruit from Don Amo Road, damp forest, 600 ft. Feb. 1. This species is pretty common in forest and shady places, ranging from 500-3000 ft. It grows to 20 ft. or more.

685 1 additional.

686

(Not named) Twining, 5-8 ft., campo thickets and edge of forest, road from Bonda to Onaca, 800-1500 ft. Dec. Flower rosy.

Full set, slightly injured by pests. Most have young fruit.

686 Add. to the numbered sheets.

Tree 15 ft. second growth, Don Diego, May 18.

686 Dissecting Material. This species is pretty common in thickets, along the border of forest (dry) and sometimes in clearings 500-2500 ft. It rarely grows to more than 500 ft. flowering through Jan. The variety with narrow leaflets is found, generally on dry soil, and is pretty common-constant; but there are intermediate forms, and sometimes narrow and broad leaflets occur on the same plant.

687 Phaseolus adenanthus Mey.

Occasional on banks of streams near Masinga 200-500 ft. Oct.-Nov.

Twining, 8-15 ft. Flower white, vexillum blotched with crimson.

Full set, with fruits, fair.

687 (already sent in) Specimens collected near Mamatoca, 100 ft. Jan. 24.

The species is rather rare on damp and generally shady ground below 1500 ft. Flower white, standard with two crimson stripes or blotches.

Flowers until Feb.

688 Mucuna pruriens DC.

Rare in dry forest below 1000 ft. Twining, 10 ft. Flower dull purplish or slate color. Oct.-Nov. (specimens are from near Mamateea- Masinga, 500 ft. Nov. 3) Good, full set, but hardly any fruits.

688. Fruit. Near Masinga, Dec.

689. Calabogonium coeruleum Desv.

Pretty common in forest and thickets below 3000 ft. A high twiner, 20-40 ft. over trees. Flowers Nov.-Dec. blue. (Specimens are from forest on the road to Agua Dulce, about 1000 ft. Nov. 22

Full set, about 17 with fruits.

689 (flowers already sent in) Fruit collected near Masinga, 350 ft. forest by a stream, Feb. 15. This species is in flower until the middle of or end of February.

690 Phaseolus vestitus Hook.

Occasional on campo, 500 ft. road to Agua Dulce. Twining in grass etc. 4 or 5 ft. Flowers in Nov. dull purplish. Nov. 21. 6 specimens.

691 Twining, 4 ft.

(not named)

Damp clearing by a stream at Quebra Gensha Mojada (near Masinga) Nov. 28. Not observed elsewhere. Flowers white. Not a cultivated species; 8 specimens, very poor. Fruit for N.Y. and Carnegie.

692 Phaseolus sylvestris H.B.K.

692-Phaseolus-sylvest

Twining, 6-8 ft. Forest near Masinga, 300 ft. Dec. 2. Only one seen. Flower light rosy purple. Good full set, with fruit.

692 (already sent in) Specimens collected near Masinga, 500 ft. Dec. 21. This species turns out to be rather common locally, in somewhat damp and generally shady places, 3000 ft. to sea-level. Flowers Dec.-Jan. lig

692(continued)

light rosy or rosy purple. The ripe legume is somewhat turned (about half as thick as it is broad). Smooth, pale straw-colored (ripe legumes sent separately).

693 Teramnus uncinatus Sw.

Twining, 10 ft. Dry woods, mountain side, road to Agua Dulce, about 1500 ft. Nov. 25. Only one seen. Flower pale yellowish. Good, full set, mostly with fruits, but these are poor.

693. Dissecting Material. I have specimens collected at Calavasa, 600 ft. Dec. 11.

694 Galactia sp. (label not sent out)

Open place in forest, mountain-side, road to Las Nubes, about 4000 ft. Dec. 3. Abundant in this place, but not seen elsewhere. Twining, 10 ft. Flower white. Good, full set.

694 (already sent in) Specimens from Jiracasaca, 2500 ft. Dec. 22. This and the locality originally noted are the only ones where I have observed the species.

695

(not named.)

A spreading tree, 20 ft. Common on hot, dry plains along the line of railroad 5-8 miles south of Guaira. Several seen in flower Nov. 8. The tree is densely leaved, and by its rounded form differs greatly in appearance from its near allies. Stamens dark red. The larger leaves are always short and blunt. 26 specimens, a few fruits.

697 Same as 698

698 Pithecolobium dulce Benth. (= # 26)

A shrub, 5-8 ft. dry thickets and clearings near stream, Bonda Flowers in Dec. and rarely earlier. The whole plant is covered with spines, those on the main stems being often 1 inch long. The down is certainly deciduous, as I have smooth and hairy leaves from the same plant.

26 specimens. Fruit for N.Y. and Carnegie.

699 Cassia bicapsularis L. (= 256)

A shrub, 10 ft. high with long, spreading branches, Campo Alegre Plantation 2000 ft. thicket by a stream, Nov. 20. Not observed elsewhere. The flowers are much larger than in the coast form.

No specimens except for N.Y. and Carnegie. Eaten.

700 Cassia bacillaris L. f.

Shrub 5-8 ft. Pretty common in forest and thickets below 1500 ft.

Flowers in Dec. (specimen is from near Mamatoca, Dec. 10. Also in flower through Jan. & Feb. 26 specimens, but many much broken. No fruits except for N.Y. and Carnegie.

700 Fruits, near Bonda, Feb. The species remains in flower until March.

701 Myropernum frutescens Jacq.

(Color variety of No. 259?) 200 ft. Shrub 4 ft. Campo thicket near Bonda. 200 ft. Dec. 26 Base of petals rosy. 7 specimens and 3 spec'ns leaves.

701 (flowers already sent in) Fruit, Bonda, April 17. The species is common near Bonda in clearing and waste places, flowering through Feb. and March; the flowering plants are leafless. In this variety the plant is a slender shrub, 3-6 ft. high.

702 Machaerium acuminatum H.B.K.

702 Tree, 15 ft. Dry forest near sea-level, edge of open ravine, 6 miles N. of Bonda, Nov. 1 (fruit only found) No specimens except fruits for N.Y. and Carnegie.

703 Erythrina coralloides Moc. et Sesse(?) Erythrina umbrosa HBK. (cha Tree, 15-20 ft. Occasional in damp forest, ravines, 1000 ft. to 3000. Flow- ers Sept.-Dec. (specimens are from near Miracasaca, 2500 ft., Sept. 30, and Onaca, 2500 ft. Dec.

703 (already sent in) Specimen collected above Onaca, 2500 ft., ravine by a stream, Aug. 17. This was a tree, 35 ft. high. I have not observed the species below 2000 ft., though in my previous note I stated, by mistake, that it ranged to 1000 ft. It appears to grow only in damp ravines.

703 7 additional.

704 Tree, 40 ft. (not named) Occasional in dry forest below 1000 ft. Flowers in Dec. (specimens is from near Mamatoca, Dec. 24 Set lost by pests; no specimens except for N.Y. and Carnegie. (the latter a poor one.)

704 Dissecting Material. This tree is pretty common in dry forest, below 1500 ft. flowering principally in Jan. and Feb. it grows to 60 ft. or more. Leaves deciduous in Jan; renewed in March; hence the flowering tree is leafless or has only young leaves. Flower rosy. The pedicels are short in all my specimens.

704(?) fruit. Niguange, on the coast 30 miles E. of Santa Marta, Feb. 10. A tree, 30 ft. I am not quite sure of the identity, but place the fruit here provisionally.

705 (not named) A small tree, near Mamatoca, 200 ft. Sept. 23. (no specimens; none for Carnegie) No dissecting Material.

~~706-Benthamantha-Caribaea-(Jacq.)-Kuntze-278)-(Jacq.)-Kuntze,-----~~

706 Benthamantha Caribaea (Jacq.) Kuntze. (=278) (var. of 278) Shrub 3 ft. Rocks by seashore at Playa Braba, Nov. 2 No specimens except for N.Y. and Carnegie.

Shrub, 3 ft. very common on dry, rocky hill, Playa Brava, Oct. 26

707 Cassia patellaria DC. suffruticose. 1-2 ft. Campo at Onaca, 2500 ft. Dec. 15, (var. of # 274 ?) No specimens for except one for N.Y. and Carnegie. No fruit; no dissecting material.

708 Aeschynomene Brasiliana DC. Suffruticose, diffuse, 2-2½ ft. (or nearly upright), Rare in dry places forest and thickets below 1000 ft. Flowers in Nov. (specimen is from near Masinga, Nov. 3. The fruited one from Agua Dulce road, 300 ft. Nov. 26. 26 specimens with fruits.

709 (not named) 3 Suffruticose. Procumbent or nearly upright, 1-1½ ft. Observed only at Onaca, 2500 ft. Dec. 1-15. Campo near forest. Rare in this locality. Full set of 26 with fruit.

710 Cracca cinerea (L.) Morong. (=55) (Remain with doubt.) (var. of No. 55 ?) Observed only on dry rocks, hills by the sea at Santa Marta, Sept. 15 and Nov. 18. Rare. Trailing or ascending, 6-15 inch Good, full set.

710 (already sent in) Specimen from Playa Brava, on the northern coast, on dry, rocky hills and especially on open land just back of the sands, where it covers large spaces; it attains a length of several feet, trailing, the ends of the branches ascending. Flower rosy purple.

711 =60

Rare on campo land and open hillsides, 1000-3000 ft. Flowers Sept.-Dec. (specimens are from a cliff on the road from Mamatoca to Agua Dulce, about 1200 ft, Nov. 23) (Grows sometimes to 3 ft. with branches towards the top) Same as 60.

712 (= 103; =54)

Upright, 12 inches observed only on campo hillside at Jiracasaca, 2500 ft. Sept. 29. Only two collected. Same as 103. ~~712~~

713 Aeschynomene Americana L.

Upright, branching 2-4 ft. Flowers Nov.-Dec. Petals pale yellow or nearly white. Rare. Observed only in clearing near Masinga, 200-300 ft. (Specimen collected Dec. 10) 26 specimens with fruits.

713 Add to the numbered sheets.

714 (Dwarf variety of No. 301 ?) Locally common on dry, open lands below 500 ft. The fruited specimen is from rocks on the seashore, 4 miles south of Guaira, Nov. 8; the others from campo near Masinga, Nov. 17 26 specimens; part with fruit.

715 Abutilon crispum (L.) Medic.

Diffuse, 2-3 ft. Flowers pale yellowish. Observed only on shady banks at the side of an open ravine at Don/ Jaco, near the sea, Nov. 5

715 (already sent in) Specimen from a clearing near Santa Marta, Dec. 8 This species varies in habit. The ordinary form near Santa Marta and Bonda is either prostrate or ascending, with slender branches three ft long or more; it may be erect, with long branches (on well grown plants) or short ones; I can find no essential difference between the erect and prostrate plants, and the forms pass into each other; thus, a plant may have long prostrate branches at the base and a central erect but slender stalk. The species is rather rare in the region inland from Santa Marta, in open ravines and clearings; flowers Oct.-Dec. Petals white (not pale yellow as I stated erroneously in my former note)

No. 485 is the erect form, the plants not well grown; the number must be dropped. Full set, good.

716 Wissadula periplocifolia (L.) Griseb. (=496)

Suffruticose, upright, 3-4 ft. Local and rather rare in clearings and open places below 1000 ft. Flowers Nov.-Dec., orange yellow. (The flowering specimen is from near Masinga, Nov. 20; the fruited one from a clearing near Bonda, Dec. 30.

716 Specimen just beginning to flower. From an open ravine near sea, 5 miles north of Bonda, Nov. 1.

717 Sida verticillata Cav. =718. Sida urens L. (changed name)

Upright or more or less diffuse 2-3 ft. Occasional on edge of campo at Onaca, 2500 ft. Dec. 20. Petals salmon-colored. In the long leaved form they are darker at the base. Full set, fair.

718 (var. of No. 717?) Trailing, 3-4 ft. the ends of branches slightly ascending. Clearing, valley near Jiracasaca, 2500 ft. Dec. 20 (flowers were not open)

718 (already sent in) Specimens from Jiracasaca, 2500 ft. Dec. 22. Petals pale orange or straw-color. If this is a variety, it is very constant, I have not observed it except in the vicinity of Jiracasaca. Good, full set

719 (var. of 717 ?) *Sida verticillata* Cav.
Suffruticose, upright, 3 ft. Open, damp valley 1000 ft. on road to Agua Dulce, Jan. 5. No specimens except for N.Y.

720 *Sida pyramidata* Upright, 3-4 ft. Fee
Forest, Agua Dulce Road, 500-1000 ft. Dec.-Jan.
Full set, not very good; somewhat injured by pests.

721. *Sida aggregata* R. Gray
Upright, branching 4-5 ft. Local in damp clearings and thickets near Bonda and Masinga (below 500 ft.) Flowers Nov.-Dec. white or, (sometimes) saffron colored (specimen is from near Bonda, Dec. 31. Good, full set.

722 *Sida stolanifera* Salzm.
Trailing and rooting, 6-24 inches. Local on damp, shady banks, generally near streams, below 1500 ft. Flowers Nov.-Jan. white (specimen is from near Bonda, Nov. 1) Full set, poor leaves.

723 *Wissadula spicata* (Pursh) Presl.
Upright, sometimes branching, 1-4 ft. Local and rare in damp clearings below 1500 ft. Flowers Oct.-Dec. yellow (specimen is from near Masinga, 500 ft. Nov.)

723 (already sent in) A specimen from Don Amo Viejo, about 1800 ft, Dec. 6 This species ranges to 2500 or 3000 ft. and in favorable localities it is a shrub, often 5 or 6 ft. high, with spreading branches; near Cacagualito, Calavasa etc. it is quite common. In the dry region near Bonda it is rather rare and does not attain so great a size. The flower is orange, not yellow. Good, full set.

724, *Melochia manducata* Wright.
A shrub, 4 ft. Clearing near Mamatoca, 100 ft. Nov. 22 The color of the flowers was not noted, but from dried specimens it appears to have been rosy or primrose. 20 specimens, good, but rather scant.

725 (not named) No label.

726 *Sida spinosa* L.
Upright, with few or no branches, 2-3 ft. Rare in campo thickets, 500-3000 ft. Flowers Nov. Dec. Petals pale yellowish. 11 specimens, scant.

727 (already sent in) A specimen with glabrate stem, from Don Amo viejo, 1800 ft, Feb. 6. The species occurs at Las Nubes, 4700 ft. and seems properly to be a mountain species form. I have observed it only in a few places.

727 Upright *Sida carpinifolia* L. (fide Ed. Baker)
with few or no branches, 2-3 ft. Flowers Nov.-Dec. Petals ochraceous yellow (specimens are from the Agua Dulce road, about 2000 ft. Nov. 24 Full set.

727 (already sent in) Specimen from open grass lands near forest, Jordan, 600 ft. Nov. 15. At this place the plants were 4-5 ft. high and branching. I noted the flower as pale salmon colored.

728 No specimens, no label *Turnera oblongifolia* Camb.

729 *Piriqueta ovata* Urb.
Upright, generally without branches, 6-20 ft. inches. Rare, observed only in clearings near Bonda, July, Petals white. Full set.

729 (already sent in) Portions of a large branching plant (2 ft. high) collected in a clearing near Masinga 500 ft. Aug. 21; also, a small specimen from Bonda, Nov. 20. The species is rare.

729 specimens to work in with numbered set.

Fl. creamy white P.R. on plains 5 m. S. of Cairra, July 22 Rare. -729-
Malvastrum Americanum (.) Torr.

730 Upright or spreading and diffuse, 6 inches to 2 ft. Somewhat less common than No. 478 with which it is generally associated in clearings and about waste ~~irre~~ places below 1500 ft. (specimens are from Masinga, 300 ft. Aug.-Sept. Flowers July-Nov. Petals saffron yellow.

730 Dissecting Material (from Masinga, 250 ft. Dec. 19) This species is quite local, growing generally in somewhat damp and shady situations; it is nearly always erect, growing to 2 ft. The flowers are much smaller than those of No. 478, and pale yellow. Flowers principally July- Dec. Full set, poor.

731 Sida carpinifolia L. (fide Ed Baker) -478)
Upright, branching, 2-5 ft. Common in waste places, clearings about village streets etc. below 2500 ft. Flowers Aug.-Dec., most freely in Oct-Nov. Petals white. (specimen is from clearing near Masinga, Aug.) Full set, good.

731 12 additional specimens.

731 Dissecting Material This species is often associated with No. 478, but is at once recognizable by its white petals- flowers, the petals sometimes tinged yellow at base as well as by its regular growth unless the plants are aborted; as far as I have observed it flowers only during the latter half of the year. No. 478 being in bloom more or less during the latter half of the year through the year. The flowers open later in the day than those of No. 478, about 12-3 oclock.

732. Tree, 15-20 ft. Common in old clearings at Cacagualito, 1500 ft. Dec. 23. Petals pale purplish. Good, full set. ("The species is pretty common in thickets in the regions east of Cacagualito, to Calavasa or beyond 500-1800 ft. Flowers until Feb. or March. It also occurs not far from Santa Marta. (Mamatoca) Abutilon giganteum (Swat) July 16.

733 (not named)
Shrub, 5-8 ft. Occasional in campo thickets, dry forest and clearings, 1500-5000 ft. Flowers Nov. & Dec. white. (specimen is from Onaca, Dec. 4, 2500 ft. Full set, pretty good.

734 Malvaviscus arborea Swz.
Shrub, 6 ft. Damp forest by a stream, Las Nubes, 4500 ft. Dec. 15. Flower bright red.

734 (already sent in) varieties from Sierra del Libano, forest, 6000ft. Jan. 23. One (labeled "acandent") was decidedly vine-like and 20 ft. high I saw others of the same habit. The other was a shrub, 8 ft. The species is rare. Full set, pretty good, some a little scant.

735 Malvaviscus arborea Swz. Shrub, 3-4 ft. Flower bright rose-colored. Observed only in damp thickets, plains near Cienaga, Sept. 8-14. Rare in this locality. 7 specimens.

Planted from seed that came from the Sierra Onaca Aug. 16. same as 736; not sent.

736

... (not named)

Observed only in an open place, bank of stream at Quebra Mojada (near Masinga, 250 ft) Oct. 28. 7 specimens.
Specimen from Calavasa Jan. 2, sent to N.Y.

737 Lundia umbrosa Bur.

Bonda, June. Flowers white. At the time this plant was collected I was confined to the house by illness. Two persons who brought it to me described it as a small tree. None of the numerous ~~tendrils~~ specimens have tendrils, and all have leaves with 3 leaflets. The leaves dry green; those of No. 348 dried darker, perhaps owing to prevalence of rain when they were collected. I will settle the question of this form next June. H.H.S. Full set.

737 Dissecting Material. I allow this number to stand provisionally but believe that it represents a myth; I have never been able to find any shrub or tree like it, and feel pretty sure that the specimens are from vines of No. 343.

738 Adenocalymna speciosum Sprague sp. nov.

A vine, 40-70 ft. Flower rather light rosy with a paler throat. Flowers in Aug. Common on hills, forest 400-1500 ft. 5-10 miles east of Bonda. The corolla lobes are somewhat unequal, giving the flower a labiate appearance. Difficult to obtain, as it occurs mainly in high forest, and cannot be seen from beneath. Full set.

738 Specimen collected 3 miles east of Bonda, 400 ft. Aug. 1. It is common over a limited space in dry forest and thickets, and I have not observed it elsewhere; the vines occurring higher up, which I supposed to be the same as this, is another species. My color note was a blunder. The flower is white, tube sometimes tinged with yellow. Quite different from No. 1143.

to of

~~738-14-additional-specimens, to complete set of 26 specimens-----~~

738 14 additional specimens to complete set of 26. Also specimens to work in with those already numbered.

739 Phryganocydia corymbosa Bureau

A vine, 50-80 ft. over trees in damp forest. Flower (including calyx) deep rosy. The species appears to be pretty common near streams, 500-2000 ft., but is difficult to obtain owing to its great height. Flowers July-Nov. (Specimen is from near Masinga Vieja, 500-ft. Nov. 17) Owing to a gummy secretion the plant, especially flower and leaf-stems, sticks to the drying-paper badly. Calyx whitish, tinged with rosy, lobe green. Leaf shining light green. Full set, good.

739 (already sent in) Specimen from dry forest 7 miles south of Mamatoca, 500 ft. Jan. 10. The flower is light rosy, paler towards the base; calyx whitish tinged with rosy, lobe green. Leaf shining light green.

(740 = 737?) Pleonotoma (more material wanted). Near Bonda, June. No note. Specimen was found among those of No. 237 (737?)

741 Arrabidaea magnifica Sprague sp. nov.

A vine 20-30 ft. Local on edge of forest, 500-1500 ft. near Masinga Vieja and at Campo Alegre. Flowers Sept.-Dec. bright rosy (specimen is from near Masinga vieja, Dec. 2) (also Minca, June.) Full set, good.

742 Arrabidaea pachycalyx Sprague sp. nov.

Vine, 30-50 ft. Flowers bright rosy. Observed only in dry forest and edge of campo, Agua Dulce Road, 500-1000 ft. Nov.-Jan. Pretty common in this region. (collected Nov. 22) 19 spec'ns not very good. Same as 744.

743 Arrabidaea sanctae Martae Sprague sp. nov.

vine, 20 ft. flowers rosy. Common below 1000 ft in dry woods and campo thickets; flowers Dec.-Jan. at which time it is nearly or quite devoid of leaves. (specimens collected at Bonda, Jan. 2) fl. in Feb.)

Full set, 1 fruit and fruit for N.Y. and Carnegie. Some leaves poor
743 (already sent in) Flowers and leaves collected 7 miles south of Mamatoca, 500-ft. banks of dry forest, Feb. 2; fruit collected near Bonda, 250 ft. Apr. 25. The species is in flower until April.

744 (see 742) Arrabidaea pachycalyx Sprague sp. nov.

Vine, 20-30 ft. Flowers Nov.-Jan. rosy. Observed only in thickets near Masinga (300ft) collected Dec. 1. Full set.

744 Dissecting Material. No. 742 is the same. From the Agua Dulce Road T The species appears to be very local. It flowers until March.

745 Amphilophium paniculatum H.B.K.

Twining, 15-20 ft. Flower salmon pink. Rare in dry forest and thickets near Bonda. Flowers Oct.-Nov. (specimen collected, Oct. 23,) Full set. Found at Minca.

746 Ruellia tuberosa L.

A low shrub, 1-2 ft. Local and rather rare in thickets near sea-level. Big Blossoms Aug.-Dec. purple (specimens are from near Guaira Aug. 13. (Two specimens, not very good. No roots.

747 Tecoma Ipe Mart

A tree 15-30 ft. Occasional on dry wooded hills near the sea. Flowers Oct. -Nov. yellow. (specimen is from near Santa Marta, Nov. 5) The tree at the time of blossoming, is nearly leafless. Full set, but get better leaves.

247 Leaf. The tree is common in dry forest inland, to 1000 or 1500 ft. but blossoms in March. Leaves deciduous in Jan. or Feb. renewed in May. The tree grows to 40 ft. or more. Full set; flowers poor.

748 Adenocalymma stenanthum Sprague sp. nov.

A vine with tendrils, 20 ft. Rare in dry forest near sea-level. Flowers Oct.-Nov. orange reddish. (specimen is from a ravine at Don Jaco near the sea, Nov. 6) 5 specimens

749 Pleonotoma variable Miers.

Near Bonda about July The specimen was found among my collections without a note.

750 Corrected to Arrabidaea rhodanthe Balbisiana Sprague new var. was Arrabidaea rotundata Bur.

I know this species only by the fruit. It occurs in a dry ravine near sea-level, 4 miles N. of Bonda. (fruit in Sept.)

750 (Fruit already sent in) A vine to 40 ft. or more. Common locally in dry forest and thickets below 500 ft. Flowers Feb.-April, rosy, varying in depth of color, throat white, often with a white streak extending up each lobe of the corolla; calyx more or less tinged with rosy. The leaves are deciduous Feb.-March, but are quickly renewed. Specimens were collected near Bonda 150 ft. March. Full set, 4 or 5 with fruits.

751 Macfadyena sp.

A vine rare in dry forest near Bonda (below 500 ft) Aug.-Sept. Flowers yellow. Full set.

751. -2 additional Specimens to complete set of 26, also specimens to work in with the numbered set.

752. Pleonotoma variable Miers.

A vine, to 15 ft. or more. Rare in thickets near Bonda and Masinga, about 250 ft. Flowers observed in May and Aug., white more or less lined with pink, outside of tube yellow. Specimens collected near Masinga, Aug. 24. Fruit collected Feb. 3 Full set.

753 Specimens to work in with the numbered set. No name.

753 (specimens were sent before) The vine is locally common near Mamatoca, occurring also at Bonda etc. It blooms freely March-June. Flower dark, ~~red~~ dull purplish red. The fruit is often 2 ft. long. Full set. Fruit for NY

753

A high vine, Rare in dry forest near Mamatoca, below 500 ft. Flowers in Aug. purple. (The color note is from memory.)

753 Fruit. Collected in dry forest near Bonda, July 22.

754 Escobedia scabrifolia R. et P.

Rare in campo thickets at Campo Alegre, 2000 ft. Upright, to 3 ft. Fl. Nov.-Jan. white. (specimen collected Nov. 20) Full set, some poor.

754 Dissecting Material. No. 755 is the same. The species varies much in the length of the tube and size of the flower.

754 specimens to work in with the numbered set.

755 = 754 Flower snowy white.

756 Paragonia pyramidata Bureau

A vine to 50 ft. or more. Occasional in forest and thickets, generally near streams, below 2000 ft. Flowers principally Nov. -April. Corolla light rosy, varying in tint and some vines nearly white; throat paler. Specimens were collected near Bonda, 150 ft. Dec. Full set.

756 variety collected near El Libano Plantation, 4 miles south of Mamatoca, 100 ft. Apr. 11. The flowers are nearly white. The color is permanent. Specimens from the same vine collected a year after were the same.

757 Miconia laevigata DC.

Tree, 20 ft. Road from Bonda to Onaca, about 1500 ft. damp hillside thicket etc. at Aug. 20 (fruit only seen; the berry is white.)

757 Specimen referred to this species, old clearing below Las Partidas about 3000 ft. Apr. 11. A shrubby tree, 10 ft. (only two or three flowers seen found. No specimens except for New York (an extra one) in flower. None for Carnegie. No dissecting Material.

758 was named M. laevigata DC. and, on same list, Clidemia brachystephana "appear to have two plants for 1 No."

1 tree, 25 ft. edge of forest, top of the Cuaco Mountain, 4500 ft. Sept. 27 (fruit only, white.) Perhaps the same as No. 757, but the berry appears to be different. No specimens except one for N.Y. (in fruit) No dissecting material.

- 759 (no name)
Shrub, to 6 ft. Rare in dry forest, 2000-3000 ft. A single flowering branch collected above Agua Dulce, about 300 ft. Apr. 11; fruit from Camp Alegre 2000 ft. Nov. 25.
I have no extra specimens of this species. A single specimen (flower and fruit) for N.Y. Flower a small head.
- 760 Miconia salvescens. DC.
A shrubby tree, to 20 ft. Mountain forest above Las Partidas, about 3800 ft, Apr. 28. Several plants seen in this locality; not observed elsewhere.
Full set, fine.
- 761 Monochaetum polyneurum Tr. forma multiflorum
Shrub, 3 ft. Two or three plants only seen in a damp clearing, hillside, Las Nubes, 4500 ft. Dec. 16. Petals rosy. Full set.
- 762 Monochaetum stellulatum Nand
A shrub, 2-3 ft. Rare, thickets and edge of forest at about 4500 ft. Petals rosy. Observed on the Cuaco Mountain Sept. 27 and at Las Nubes Dec. 18 (specimen is from Las Nubes) 5 specimens.
- 763 (no name)
A shrub, rarely a small tree, 3-7 ft. Local and rather rare, 2000-4500 ft. thickets and border of forest. Flowers March-April. Petals white. Specimens were collected 7 miles northeast of Masinga, about 2500 ft. March 28. Good, full set.
- 764 Occasional in campo thickets and dry forest, 1500-3000 ft. Flowers Oct-Dec. 2-3 ft. high, often without branches. (specimen is from Campo Alegre 2000 ft. Nov. 20.) Full set, rather scant. Clidemia aphanantha Sagot.
- 764 Variety from the top of the Cuaco Mountain, 4500 ft. Sept. 27, Campo, edge of forest.
- 765 Conostegia subhirsuta DC.
Shrub, 6 ft. Two or three only found in damp forest, ravine by a stream Campo Alegre, 2000 ft. Nov. 20. There were only a few (apparently belated) flowers. Petals white.
- 765 Specimen from near Las Partidas, 500 ft., June 10. It ranges from 3000 to 4500 ft. Occasional specimens (like the one sent in before) being found as low as 2000 ft. Commonly it is a tree, to 20 or 25 ft. Common near Las Partidas and Valparaiso. Observed Jan.-July, and in Nov. Berry blue-black. Full set.
- 766 Clidemia spicata DC. shrub, 2-3 ft. Rare in campo thickets and dry forest, about 2000 ft. Flowers in Nov. and Dec. Petals white (specimen is from Campo Alegre, Nov. 20. Also seen near Onaca, on the Agua Dulce Road, etc. Full set, some not in full flower.
- 766 Specimens to work in with the numbered set.
- 767 Clidemia strigillosa DC.
767 A shrub, 3-4 ft. Observed only on the Agua Dulce Road, about 1500 ft. thicket, edge of forest, Nov. 23.
No specimens except for N.Y. No dissecting material.
- 768 Chaetolepis alpina latifolia Cogn.
Shrubby, to 12 inches. Moderately common on open ridges, 6500-7500 ft. Flowers observed Jan.-March. Petals yellow. Specimen is from the San Lorenzo Ridge, about Feb. 27. Full set, very scant.

769 Heterotrichum octonum DC. (this label used "appear to have 2 plants for 1 number".)

Specimen collected near Minca, border of forest, 2200 ft. June 8. The species grows to 6 or 7 ft. but commonly is not over 4 ft. high.

No. 771 appears to be the same or variety. It was found on the banks of a stream, and may have grown from seed, brought down from the mountains during a flood.

769 Shrub, 3-4 ft. Rare in thickets and on edge of forest, 2000-3000 ft. Petals white. Flowers Sept.-Nov. (specimen is from Jiracasaca, 2500 ft. Sept. 29) Full set.

770 Clidemia dentata D. Don. (=458)?

A low shrub. Observed only in thicket at Campo Alegre, Sept. 22 Same as No. 458

771 Clidemia hirta D. Don.

A shrub, 6 ft. Petals white, a single plant found in fruit on the bank of a stream near Bonda, Nov. 24. This is the only Melastomacid which I found near Bonda. 1 specimens, 2 or 3 buds only.

772. Schurrea capheoides Cogn.

Common on damp banks and near streams, in more or less open places, forest roads etc. 1000-5000 ft. Flowers Nov.-Dec. Petals rosy. (specimens are from Agua Dulce road about 1500 ft. Nov. 22) Full set, scant and poor.

773 Arthrostemma fragile Lindl.

Herbaceous, upright or more or less diffuse, branching, 3-4 ft. Rare on banks of streams in open places 1500-3000 ft. Flowers observed in May, Aug., Sept. and Dec. Petals rosy, deciduous soon after the flower opens in the morning. (specimens are from Onaca, 2500 ft. Dec. 4) 26 specimens.

774 Monochaetum Meridense Cogn.

Diffuse, 3-5 ft. Open or shady places near stream at Las Nubes, Dec. 15 Rare, petals rosy, deciduous early in the day. Full set.

775 Ximenia Americana L.

A river-side tree of the dry forest region near Bonda. Not common. Grows to 40 ft. First flowers observed Jan. 10.

775 (already sent in) Specimens collected at Bonda, 1500 ft. Jan. 16. The leaves are renewed about the time of flowering, old leaves falling off as the new ones appear. Flower whitish. The species is pretty common below 1500 ft. It sometimes grows at a distance from water.

775 (already sent in) Specimen collected at Bonda, 150 ft. Jan. 16 The leaves are renewed about the time of flowering, old leaves etc. Full set.

776 (not named)

A hard-wood tree, growing to 40 ft. or more. Rare below 1500 ft. generally in wooded valleys. Flowers observed in Sept. and Dec. (specimens are from Masinga, Dec. 22) Flower white, fragrant. Full set, good.

777 Psidium ovoideum Berg.

A shrub, 2-4 ft. Occasional in campo thickets below 2000 ft. Flowers in May and, occasionally, later in Aug. and Sept. Specimen is from Cacaguaito, 1500 ft. May. Full set.

777 Specimen collected near Minca, 2000 ft. April. The wild guava of this region as far as I have seen, is a low shrub, seldom over 3 or 3 1/2 ft high. The ~~fruit~~ ^{fruit} is edible, but small. It flowers freely, March and April.

777 Fruit near Bonda, Sept.

778 Psidiopsis Moritziana Berg

A tree, 40 ft. Common locally along the edge of forest and campo, 1500-2500 ft. Flowers May-Dec. (The larger specimen is from Campo Alegre, 2000 ft. Nov. 15; the smaller near the road from Bonda to Cacagualito, 2000 ft. Aug. 7. Petals white, early deciduous. Full set, good.

778 Long-leaved variety, collected near Don Amo 2500 ft. March 12

Fugosia heterophylla

779 Fugosia heterophylla-Benth. (stet)

A shrub, not more than 8 inches high. Three or four roots only seen on a small campo hillside, surrounded by dry forest, near Bonda. Flowers Aug. Oct. (specimens collected in Oct.)

779 (already sent in) Specimen from a dry water-course 6 miles north of Bonda, 1000 ft, Nov. 17; also, small specimen with root, dry, open hill near Bonda, 150 ft. Nov. 29. A rare species, found in arid situations not far from sea-level and flowering principally in Nov.. When well grown the plant is often decumbent, 2-2½ ft. Flowers either yellow or rosy, perhaps changing color. Good, full set, but flowers mostly closed.

780 Mayapaea caribaea (Jacq.) Kuntze.

A tree, 40-50 ft. hard wood. Occasionally in forest valleys and hillside 5-8 miles south of Mamatoca, 500-1500 ft. Flowers Nov.-Jan. white with a strong odor of vanilla (fruited specimen is from a river-valley 500 ft. Jan. 5; the other from hillside, 1500 ft. Nov. 27. Full set.

781 Tree. 30 ft. Damp wooded hillside at Las Nubes, (no name.)
4500 ft. Dec. 3. Not observed elsewhere. Flower white with pink spots.
18 specimens not very good.

782 Malpighia glabra L.

A shrub, 4 ft. forest on the road from Bonda to Cacagualito, 1500 ft. Nov. 10. No specimens except for N., Y.

783 Agonandra brasiliensis B. et N.

Tree, 40 ft. Forest, valley of stream near Bonda (240) Jan. 10.
Flowers green.

783 (specimens already sent in) Flowering branch collected at Bonda, Jan. 31 and leaves from the same collected Jan. 5. This is a compact, thickly leaved tree, to 35 ft. occasional in the dry forest below 1000 ft. Flowers Jan.- March. Its dark green, shining foliage makes it one of the most beautiful trees of the dry forest. The leaves are renewed on young, flowering branches in Jan. but no flowers appear on the old branches.

784 Talisia olivaeformis Radlk.

A tree, to 50 ft. Rare in forest near streams in the vicinity of Bonda. (250 ft. collected Dec. 29. Full set, fine.

785 Talisia olivaeformis Radlk.

A tree to 50 ft. Common in the dry forest region below 1500 ft. generally not far from streams. Flowers Dec.--Jan. (specimen is from Bonda, Dec. 21; Full set, good.

786 Guazuma ulmifolia Lam.

Tree, to 50 ft. Common in dry forest, especially near (but not on the banks of) streams, below 1500 ft. Flowers June-Nov. most freely in Sept. Specimens are from Bonda, 250 ft. July Full set, Good

786 (already sent in) Variety from Neguange, near the northern coast, Apr. 3. This species ranges to 3000 ft. or higher, and is one of the commoner forest trees. It flowers more or less throughout the year, freely, March, May and in Sept. In the lower lands the leaves are deciduous, or partly so in March, but are quickly renewed.

787

A tree, to 25 ft. Occasional in dry forest below 1500 ft. (specimen in ~~fruit~~ fruit only collected near Bonda, July.) 7 specimens. Fruit only.

788 Erythroxyton passerinum Mart. Erythroxyton campestre St. Hil.?

A small tree. Occasional in dry forest near Bonda. Flowers early in June (specimens collected at end of June and in July. Specimens in bud (belated) were observed Aug. 25.

788 (poor specimen sent in before) Specimens from thicket by a stream, Mas Masinga Vieja, 800 ft. Apr. 25. The flowers were somewhat/dry and most of them fell off. This is a shrub or small tree, 5-15 ft. rather rare in thickets below 1500 ft. Full set, mostly with fruit.

788 Specimen from Bonda, 150 ft. June 19. This proves to be pretty common below 150 ft. principally along the borders of forest, generally flowering in June.

789 Cascaria ramiflora Vahl

A tree, to 35 ft. Moderately common in dry forest below 500 ft. (not observed above that altitude) Flowers March-April Specimen is from Bonda, 150 ft. flowers collected about Apr. 1. The tree retains its leaves until Feb.

N.B. I am not absolutely certain, though nearly sure, that the leaves and flowers are of the same species. The question will be settled later. If it turns out that I am mistaken the number may be retained for the flowers.

789 A tree, to 35 ft. Common in dry forest below 500 ft. (not observed ~~above~~ above that altitude) Flowers March-June; the flowers appear after rains, and if an interval of dry weather intervenes the same tree blossoms twice; the later flowers have longer pedicels. Flower whitish. The leaves are deciduous about Jan. or Feb. sometimes in March according to the situation, and young leaves appear in April or May. The flower-buds are apparent as early as Sept. Flowers are from Bonda, 150 ft. March 11; leaves from the same tree, Jan. The same tree blossomed after rains at the end of May, the flower clusters then appearing larger on account of the larger pedicels.

790 No specimen; no label; no name.

791 -792 Coccoloba ramosissima Linden

A compact, gnarled tree, to 20 or 25 ft. common in a dry forest below 1000 ft. Flowers Aug. 20-Sept. 20 Flowers white, fragrant. (specimens are from Bonda, Aug. 23, the fruit Sept. Better specimens will be sent later.

792 Coccoloba ramosissima Linden.

(variety of 791 ?) A low tree. Nearly Santa Marta, July 21. Full set, but poor. Flowers July in Oct.

~~793 - Anypis ramiflora Vahl. (?)~~

793 Anypis maritima Jacq.

A variety of No. 399. Characterized by shorter and unifoliate leaves and by spotted branchlets, which, however, are sometimes seen in the other form. Specimens from ~~at~~ Bonda. June.

793 (specimen from the same tree already sent in, but the flowers were now open) Bonda, Aug. 30. '99. Owing to the unusually dry season this and other trees blossomed later than in the preceding year. I da considered this a var. of No. 399, but it is, perhaps, distinct. The

792--(specimen---

--94--

793 (continued) The dotted petals seem characteristic. 15 specimens.

794 (No name)

A tree, 40 ft. Damp forest, valley at Campo Alegre, 2000 ft. Sept. 22
No specimens, except one for N.Y.

795. A small tree, 15 ft. Daphnopsis tenuifolius Griseb.
Forest hillside, Las Nubes, 4500 ft. Dec. 5. Full set, fair.

796 (no name)

A tree, 60-70 ft. Damp forest, valley near a stream, road to Las Nubes, about
3000 ft. Dec. 20. Full set.

797 Nectandra concinna Nees.

A common tree, (riverside) below 2000 ft. Grows to 60 or 70 ft. Flowers
occasionally Nov.-Dec. freely in January and at that time the leaves are
renewed, giving the tree quite a different appearance. The size of the
flowers varies considerably (specimens are from Bonda, Dec.-Jan. one
with old and the other with new leaves.) Full set, good.

798, (no name)

A shrub, 3-6 ft. Common locally in campo thickets and open places in dry
forest, below 2000 ft. Flowers Nov.-Jan. white. (specimens from near Masin-
ga, Dec. 22) Full set.

799

A tree to 30 ft. Rare in damp places forest, especially near streams, be-
low 2500 ft. Flowers Dec.-Jan. (specimen is from near Bonda, about 500 ft.
Jan. 4) Probably a variety of No. 454 Full set, fair.

800.

A river-side tree, near Calabaça, about 1000 ft. May 18. 4 specimens.

801 Myroxylon prunifolia (Griseb.) Rusby

Tree, to 35 ft. Pretty common in forest, damp hillsides or near streams, be-
low 2500 ft. Flowers Oct.-Jan. The trunk has scattered clusters of thorns
but the branches are not thorny. (specimens collected near Bonda, Jan. 3
Full set, fair.

801 Specimens from Quebra Concha 3 miles N. of Bonda Jan. 11.

802 Ruprechtia tenuiflora Benth.

A tree, 30 ft. Forest near Masinga ^{Vieja} ~~Vieja~~ about 800 ft. Dec. 22. 808 is
the fruit. Full set; as good as can be obtained when plant is in flower

803 Vismia Guianensis (Aubl.) Pers.

Shrub or small tree. Forest near a stream. Jiracasaca, 2500 ft. Sept. 27
18 specimens.

803 8 additional specimens to complete set of 26, also, specimens to work
in with these already numbered.

803 (already sent in) Specimen from Minca, 2000 ft. May. The plant is
found in the dry forest and is locally common at about 2000-3000 ft. It
forms a tree, 20 or 25 ft. high, but is often shrub-like.

804 Cordia Gaea Gerascanthus Jacq. (-803)

A tree, 30-35 ft. near Mamatoca. (150 ft. above sea-level) Dec. 9. Flowers
whitish with a rosy or blush tint. Notice shape of petals.

805 Cordia gerascanthus =907.1870, (805,806)

Tree, 30-35 ft. This appears to be the common form in dry forest, below 1000 ft.; but I cannot speak positively as to the relative rarity of this and No. 806, as I did not distinguish them in collecting. The specimen is from Bonda, Jan. 2. Flowers white.

805 (already sent in) Specimen from Bonda, 150 ft. Jan. 9. Nos. 804, and 806 are the same. The flowers and leaves vary and the differences are constant on the same tree. The species is common in the dry forest, ranging to 2000 ft. at least. Full set, good.

806 Cordia gerascanthus Jacq. (=805) A tree, about 30 ft. near Bonda, Dec. 27. This and No. 805 begin to bloom towards the end of December; at that time the leaves are falling, so that it is difficult to obtain good specimens. Flowers white.

~~807 Ruprechtia tenuiflora Benth.~~

807 Cordia gerascanthus Jacq. (=805)
A tree, about 30 ft. high. The two which I have seen were growing on rocks in the beds of rivers where the roots are exposed to floods; both localities were about 700 ft. above sea. Flowers Dec. & Jan. The specimen was collected near Masinga Vieja, Dec. 22. Flower white. Full set, good.

808 Ruprechtia tenuiflora Benth. A tree, 35-40 ft. near Santa Marta, Dec. 9. Wings of the calyx red. No labels; no specimens.

809 Sauraja floribunda ^{Benth.} (author?) (label not sent)
A tree, to 20 ft. Common at Las Nubes, 4500 ft. in damp forest and thickets near streams. Flowers in Dec. white (collected Dec. 16) Full set, good.

810 Anacardium occidentale L.
A small tree, the cashew, in a wild state, appears to be rare in the Santa Marta district. The specimen is from campo thickets near Masinga, Nov. 29. The cultivated plant blooms until Jan.

811 Near Bonda (250 ft.) Chrysobalanus Icaca L.
Oct. 5. A tree.

811 (poor specimen already sent in) specimens from seashore thickets at Buritaca, Sept. 23. This is a shrub (not a tree, as erroneously stated in my note) 3-8 ft. high. It is common locally on the seashore and, occurs rarely several miles inland, in open, rocky ravines. The fruit, called Acaco, is edible and is used for making a kind of jelly; in flavor it resembles a seaside grape.

812 Dyolioscarpus semidentatus Garcke =905 (Probably 905 is different, but Rusby had not settled question.) A high vine. Damp forest, river-valley near Masinga Vieja, 1000 ft. Jan. 10. Full set, quite good.

813 Curatella Americana L.
A ~~gnarled~~ gnarled tree, 10-20 ft. This is one of the few trees which grow in the open campo, though many are found in campo thickets and along the edge of the forest. Common, 800-2500 ft. The specimen is from the Onaca road, about 2000 ft. Dec. 20 (apparently an unusual date for the flowers, as I have seen no others.) The leaves are very variable. They are sometimes used here (as in Brazil) as sand paper. 17 specimens, mostly good.

813 Leaf, showing variation on young shoots.

814 Clusia odorata Seem.

Tree, to 40 ft. Petals white. Edge of forest, top of the Cuaco Mountain 4500 ft. Sept. 27 I have not observed this species elsewhere. 3-specimens; 2 in bud only.

815

No name. A tree, 15-40 ft. This is the common Clusia below 3000 ft. with rosy petals. Flowers Aug.-Sept. In a few places I have seen large groves of this tree, almost to the exclusion of other species, but generally it grows scattered through the forest. It does not appear to attain a large size in this region. Specimen is from near Masinga Vieja Aug 22. No specimens except for N.Y. and Carnegie. (poor)

816 Muntingia calabura L.

A tree, to 40 or 50 ft. Common locally in wooded valleys below 2000 ft. generally near streams. Flowers Nov.-Jan., white (specimens from forest 6 miles south of Mamatoca. Nov. 24

817 Ateleia sp. (label not sent)

A tree, to 50 ft. Occasional in dry forest below 10000 ft. Flowers in Nov. white; they have a strong fetid odor. (specimen collected 5 miles south of Mamatoca. Nov. 24. Full set. I found it in flower 3 miles north of Bonda, 250 ft. Oct. 23.

818 Fruit collected on plain 3 miles S. of Guaira, July 22. A common tree to 20 or 25 ft.

819 Bursera tomentosa Tr. et Pl.

A tree, 30-40 ft. Common in dry forest and campo thickets below 1000 ft. Flowers May-July (specimens were collected near Bonda early in July)

819 To work in; 8 (or 6 ?) labels.

819 (already sent in) Specimens collected near Masinga Vieja, 1200 ft. ; open land, May 10; another specimen (the larger one) from Minca, 2000 ft. June 6. This species grows to 26 ft. or more, but is commonly a shrubby tree, 10-15 ft. high; it occurs in thickets or on open lands, ranging to about 2300 ft. Flowers white changing to pinkish. Leaves deciduous Jan.-May, and the flowering tree generally showing only young leaves. Full set. 18 with fruit.

820 (no name)

Tree, 25 ft. Very dry forest, plains near the sea. 5 miles South of ~~Guaira~~ Guaira, Nov. 8. 1 specimen

821

A tree, to 40 ft. common in dry forest below 1000 ft. Specimen (in forest) (in fruit only) collected near Bonda, July 20 (no specimens except tree in fruit for N.Y.) (same as 820 ?)

822 Rhus juglandifolia H.B.K.

A tree, to 40 ft. Occasional in dry forest below 1000 ft. Flowers early in June (specimen is from Bonda) Full set.

823 Astronium Planchonianum Engl. (?)

A tree. The note was lost, but probably it was collected near Bonda in S Sept. 3 poor specimens.

824 Ehretia juglandifolia H.B.K.
Swampy lands by railroad, 5 miles South of Cienaga, Sept. 13. The specimens seen were small trees, not over 5 or 6 ft. high.

825 Quassia amara L. small tree or shrub, 5-8 ft. Observed only in damp forest on road to Agua Dulce, 500-1500 ft. Flowers Nov.-Jan. scarlet. (specimen collected Jan. 7) . Full set.

826 Melia Azedarach L.
A tree, 25 ft. but flowers when not more than 5 ft. high. Common locally in waste places, old clearings etc. below 1000 ft. Flowers July-Nov. (specimens from near Mamatoca, Nov.) Full set, good.

827
A tree, to 40 ft. Common in dry forest below 1500 ft. Local name "Volador" Nov. 20 The leaves are deciduous about the time of flowering. Full set.

828 Crataeva gynandra L.
A tree, to 40 ft. Occasional in the dry forest region, near streams or in ravines, below 1500 ft. Flowers in Jan. (specimen from near Bonda, Jan. 10. Full set, good.

829 Ochroma lagopus L.
A tree, 30-40 ft. Common locally near streams 500-2500 ft. Flowers Dec.-Jan. Petals pale yellowish. The silk enveloping the seeds is used for pillows etc. and is sold in the market at Santa Marta; it is collected in May when it is found scattered on the ground under the trees. (specimen is from near Mamatoca, Dec. 10. Full set, good, fair.

830 Cochlospermum hibiscoides Kunth.
A tree, to 25 or 30 ft. Common in dry forest below 2000 ft. Flowers Dec. to Jan. bright yellow. The flowering tree is leafless (specimen collected near Masinga vieja, 1500 ft. Dec. 19 Full set; will pass.

831 Thevetia nerii folia Juss.
A tree, to 15 ft. Observed only near Santa Marta, in thickets, alluvial land by a river; pretty common in this locality. Flowers Sept. yellow (collected Sept. 14) 8 specimens; Bignonia-like.

832 Lecythis elliptica H.B.K.
A tree to 40 ft. Observed only near the San Pedro plantation (4 miles from Santa Marta) on low and swampy (somewhat) land forest land; pretty common in this locality. Flowers Aug.-Oct. white. I neglected to collect the fruit, which will be sent later; it looks like a small Lecythis about 3 inches in diameter. The nuts are not eaten. (on dissection material label) The tree is moderately common on low, wet lands S. of Mamatoca. I have seen flowers in Feb.. Full set, broken.

833 Lafoensia puniceifolia DC.
A tree, to 35 or 40 ft. Common along edges of forest and in camp thickets, below 2500 ft. but especially from 1000-2500 ft. Flowers Oct.-Dec. (specimen is from near Masinga, Nov. Full set, pretty fair.

834 Byrsonima brachystachya De. (?)
Cacagualito, 1500 ft. forest, May; no note, but no doubt a tree. I have only two specimens, both in bud.

834 Cacagualito, 1500 ft. May; forest. No note; No specimens except one in bud for N.Y. No dissecting material.

835 Capparis cynophallophora L.

A small tree, dry forest near river Bonda, Aug. 13. Only imperfect specimens obtained. Flower like No. 449

835 (poor specimens already sent in) Specimens collected near Mamatoca 100 ft. Apr. 29. It is a tree to 20 ft. and is moderately common in dry thickets near Mamatoca. 16 specimens.

836 a. Aspidosperma decipiens Muell Arg. (was label sent?)

Dry forest, Bonda, Aug. Fruit only collected, The note was lost but the plant is doubtless a small tree. Fruit only.

836 (young fruit already sent in) Specimens collected at Masinga Vieja, 800 ft. forest by a stream, April 25; also fruit collected near Bonda. N Feb. The species is rare, and is generally found on the open lands. Full set of flowers (not out well) and 11 with fruits. Proves to be common in open lands June-July.

837 Carica papaya -838.1892) L.

A tree, 15-20 ft. Flowers from the simple stem, Campo Alegre, about 2000 ft. Jan. 2. Flowers have a very strong fragrance like those of the papaw. The species seems to be rare in this region, district.

19 specimens; some leaves eaten.

837 Section of leaf.

838 Carica papaya L. -837 "may be a n. sp. but C. papaya when wild almost always has small fruit." In later list C. papaya."

A tree, to 10 ft. Rare in wooded valleys below 1400 ft. Flowers from the stem. Nov.-Dec. (specimen is from near Bonda, Nov. 24. 9 specimens. Stem has short branches.

839 Chiococca racemosa L.

A shrub to 8 ft. with long, spreading branches. Observed only on the Agua Dulce road at about 2000 ft. edge of forest, Collected Nov. 22.

10 specimens in fruit or petals fallen off)

Solanum840 A-~~shrub~~Solanum heterophyllum Lam. (is this number right? No Solonaceae here. Label not sent.

A shrub, to 4 or 5 ft. Villa Real, 500 ft. damp clearing, Dec. 29. Corolla purple. In all my specimens the flowers are somewhat larger than those of No. 1148, and the pistil is longer than the stamens.

Full set, about like this.

841 Cordia alba Ret S. -842

A tree, to 25 or 30 ft. Common on low and damp lands near the coast and five or six miles inland. It is often cultivated for ornament and the occasional tree seen in old clearings and about village streets further inland were no doubt planted. Flowers at intervals from May to Jan. (or later) Berry globose, white. (specimen is from near Mamatoca, Sept.) No 842 is not separable 21 specimens Berry is eaten and used for cigar-wrappers.

842. A variety of 841. (-841) Common on irrigated lands near Cienaga, (collected Sept. 11) (the peculiarities of the calyx and leaf are found in all my Cienaga specimens)

843. Capparis tenuisiliqua Jacq.

A tree, to 12 ft. Local and rare in dry forest, near Bonda (250 ft.)

Fruit collected July 12.

843 (fruit already sent in) Flowering specimen collected near Mamatoca, 100 ft. Feb. 12. The species is a small tree, or reduced to a shrub; see occasional in thickets below 1000 ft. Flowers Feb.-March, white. Full set. 4 with fruit.

844 Bunchosia mollis Benth.

(A small tree, to 10 ft. Occasional in dry forest below 1000 ft. Fruit collected near Bonda, Aug. 1. Flowers in June (better flowering specimens will be sent later.)

844 (fruit and poor flowering specimen already sent in) Specimen collected 2 miles west of Bonda, thicket by a stream 100 ft. March 26. This is a shrub or shrubby tree, 5-10 ft. high. Sometimes with slender branches which appear sub-scandent. Berry red. The species is rare in dry thickets not far from sea-level. Full set. Fruit for N.Y. and Carnegie.

844 26 specimens. Substitute for those already numbered. These are much better.

844 Dup.

845

(No name)

A tree, to 25 ft. Occasional in thickets, mountain ridges, 2500-4500 ft. Flowers in March. The flowering branches are often leafless. Specimens were collected 6 miles northeast of Masinga, about 2500 ft. March 28. Petals white.

846 Pavonia typhalea (L.) Cav.

Suffruticose. Grows to 4 ft. branching, but flowers when 1 ft. high. Common locally in clearings and forest roads, damp situations, 1500-3000 ft. Blossoms May-Nov. white. The burs catch on clothing. (The larger specimen is from Cacagualito, 1500 ft. Aug. 8; the other from Jiracasaca, 2500 ft. Sept. 26) 19 specimens, some scant. (stet)

847 Siparuna patelliformis Perkins Siparunia

A tree to 1500 20 ft. Pretty common in damp forest and thickets near streams, at Las Nubes, 4500 ft. Dec. 16. The flower is pale greenish thick and brittle. Fy Full set, pretty good.

848 Matayba scrobiculata Radlk.

A tree, to 35 ft. Observed only in a wooded valley, 3-6 miles south of Mamatoca. Flowers South Nov. -Jan. (The smaller specimen collected Nov. 21 the larger (in bud only) Jan. 6 No specimens except ~~one~~ for Carnegie; not in good flower.

850 849 No specimens, no label. No name.

850 Hirtella glandulosa Spreng.

A tree, to 40 ft. Pretty common on the banks of streams in wooded valleys 2000 ft. Filaments purple (larger specimen is from near Bonda, Jan. 3 The fruited one from near Masinga, Sept. 21 I have flowers collected in May. Full set, fine.

851-844

(no name)

Collected near Bonda (250 ft.) Aug. 7. The specimens were brought in by a native who described the plant as a tree. It looks more like a vine. 2 poor specimens.

852 Rubus adenotrichus Schlicht.

Diffuse, bramble-like, 4-5 ft. Common on campo, edge of forest top of Mt Cuaco, 4500 ft. Sept. 27. Only a few were seen in flower. No specimens except for N.Y.

853 Triplaris Surinamensis Cham. ?

A tree, to 30 ft. Common in wooded valleys and ravines of the dry forest district below 2000 ft. The flowers are white and not fragrant. The bright bright, red fruits are conspicuous towards the end of January. Full set with fruits, fine.

853 Leaf. The lower leaves are often larger than this by several inches.

854 Cestrum scandens Vahl.

A twining vine to 15 ft. Occasional in the dry forest district below 1500 ft. principally in thickets near streams. Flowers in Jan. (specimens is from the Agua Dulce road 1800 ft. Jan. 10. Full set, good.

855. Cestrum megalophyllum Dun.

A tree, to 20 or 25 ft. Rare in damp wooded valleys, 500-2000 ft. Flower in Jan.-2000 ft. Flowers (specimen is from the Agua Dulce road, forest about 1000 ft. Jan. 10) Full set, good.

No note; Var. of No. 2100 ? Not sent.

856 Cestrum megalophyllum Dun.

A shrub or small tree, 10 or 12 ft. Damp forest, Campo Alegre, Dec. 30. All the specimens are long-leaved. Full set, nearly all good.

857 Saurauja pedunculata Hook(?) ?

A tree. Forest, Cadagualito, 1500 ft. May. (The original note was lost) 21 specimens.

----Specimens from Las Partidas, 3500 ft. June 1. It is a large tree.

858 Ixora floribunda Griseb. (buds already sent in) A tree to 50 ft. but flowers when small and may be reduced to a shrub. Occasional in forest below 3000 ft, principally near streams. Flowers Jan.-Feb. white (or slightly rose) odorous.

The leaves vary greatly in form and in some the flowers are larger, but I found no structural differences characters to separate them.

Specimens were collected near Masinga Vieja, about 800 ft. Jan. 31

Full set, fine.

858 /A small tree. Forest near a stream 3 miles north of Bonda, Jan. 3, called "Abacate macho"; male alligator pear. Fruit is not edible (all my specimens are in bud) Full set in bud.

859

(no name)

A shrub to 6 ft. Common on wooded banks of stream near Calavasa, Flowers collected in May. In all my specimens the flowers are larger than in No. 430, the stamens larger, leaf stouter and the midrib puberulous beneath. No. 430 was collected near Calavasa in July. Full set, somewhat scant.

860

A tree, 20 ft. Deep ravine in heavy, damp forest at Campo Alegre, 2000 ft. Nov. 20 6 specimens.

861 Claytonia longifolia R. et P.

A shrub with a simple stem or two or three branches, 4-5 ft. Occasional in damp forest, 500-3000 ft. Flowers in Jan. The flower clusters cover the stem below the leaves which are found only on the upper part of the plant. Specimen is from forest in the Agua Dulce road, about 1000 ft.

Jan. 7. Full set.

862.

Forest tree, Valparaiso, 4500 ft. March 11 (Fruit only) No specimens, except a rather poor one for N.Y.

863 Jacquinia armillaris L.

A tree, to 20 ft. Occasional in thickets on dry plains about Chienaga, near the sea. Only a few flowers observed, Sept. 9 Flower whitish.

(No specimens except for N.Y. and Carnegie.)

864

A tree, to 35 ft. Pretty common on border of forest, 1500-3000 ft. hillsides. Flowers in Nov. (specimens are from the road from Bonda to Cacagualito, 2000 ft. Nov. 10) Full set.

865 Erythroxylon brevipes DC.

--101--

A spreading tree, to 20 ft. Observed only on dry plains, 5 miles South of Guaira, near the seashore, Nov. 8. 7 specimens.

866

A small tree, to 12 ft. Rare in dry forest not far from sea-level. Flowers Aug.-Sept. The specimens were collected near Mamatoca, Aug. 9. Though closely resembling No. 831 this plant is clearly distinct, not only by the characters of the leaves and flowers but by the habit.

Good, 21 specimens.

867 Tournefortia tricolor

A twining vine, to 20 ft. Dry forest east of Bonda, Jan. 4.

867 Specimen from Masinga Vieja, 600 ft. forest by a stream, Jan. 31. The vine is rare, occurring near streams in the forest below 2500 ft. and on the seashore; flowers white, with a delicate fragrance.

A specimen from Agua Dulce (with long leaves) sent to N.Y.

Full set, fine, both vars.

868 Aegiphila Martinicensis L. (?) = 869 ? = 829 ?

A shrub or shrubby tree, 5-20 ft. Common in dry forest, thickets etc. below 1500 ft. Flowers Aug.-Sept. (specimens are from near Bonda Aug. . Better ones will be sent later. 12 specimens mostly poor. A good one for New York.

869 (=868?) = 829 (var. of 868 ?) A shrub, 5 ft. Dry forest, Bonda, Dec.

No specimens except for N.Y.

870 Aegiphila mollis H.B.K.

A shrub, to 6 ft. Rare in forest 500-2000 ft. Specimen was collected on the road from Bonda to Onaca, about 1500 ft. Aug.

3 specimens only 3 or 4 with open flowers.

871 Heliotropium Indicum L.

An herb, to 2 ft. Common locally in clearings. Flowers May-Aug. (specimen is from Bonda, July.)

871 (already sent in) Specimen from Bonda; the larger one collected in Oct., the other in Feb. This is a common weed ranging to 3000 ft. and growing in damp or very dry situations. Flowers throughout the year, lilac; varies greatly in the size and form of the leaves and the pubescence; plants seen in the dry season are generally less than 1 ft. high and very hairy; in the wet season it grows to 2 ft. or more. The leaves are light green, more or less wrinkled. Full set some not very good.

872 = 873 An herb, 1 ft. Occasional in damp clearings below 1500 ft. Specimen is from Bonda, July 15. Better ones will be sent later. Flowers white.

873 Heliotropium parviflorum L.

An herb to 2 or 2½ ft. Local in clearings and waste places below 1000 ft. Flowers May-Sept. white. (specimens are from Bonda, July.)

873 (specimens already sent in) Specimens from a clearing near Mamatoca, Nov. 10. A common weed, growing sometimes to 3 ft. but generally not over 18 inches; flowers May-Jan. white. No. 872 is the same. Ranges to 3000 ft. Full set, good.

874 Combretum gloriosum Rusby?

A shrub with long branches which droop over or grow upward supported by other plants; in this way it may attain 40 ft. or more, appearing like a vine. Flowers in Jan. Common in hillside forest 500-2000 ft. and along wooded streams to sea-level. During the flowering season it is a striking feature in the landscape. Specimen from Bonda, Jan. 3. Full set.

No. 874 Buds. The fruit collected Feb. 6. Specimen sent to N.Y. and Carnegie and a few in general set.

875 Ipomaea luxurians Moric.
A twiner, to 20 ft. Dry forest near Mamatoca Nov. 25. Rare.
875 Specimen from Calavasa, 500 ft. Dec. 15. The corolla is white with black hairs. Full set, fine.
The species is found in open, swampy places. It is abundant in the swamp 3-4 miles south of Mamatoca, where I found it blossoming in March. In a previous note I stated erroneously that the species was from the dry forest.

876 Maripa scandens Aubl.
A twiner, to 25 ft. Occasional in dry forest and campo thickets below 150 ft. Flowers Nov.-Jan. Ochraceous. (specimens collected 5 miles east of Bonda, about 500 ft. Dec. 23) Full set.

No. 876 specimens showing variations in the leaves, Bonda, Dec.

877
A twiner, to 20 ft. Rare on borders of forest, below 1000 ft. Flowers Oct.-Nov. (specimen was collected 5 miles south of Mamatoca, about 800 ft. Nov. 21) All my specimens have the leaves subcordate at base; 5 spec'ns accidental variation of 876.

878 Entada polystachya DC.
A high, sub-scandent shrub, to 30 ft. Occasional on alluvial banks of rivers not far from the sea. Flowers in Sept. (specimen is from near Papare, Sept. 9) 4 specimens.

879 Tetracera volubilis L.
A vine, to 50 ft. Rare in damp forest, 500-2500 ft. Flowers Sept.-Oct. porcelainous-white (specimen collected 5 miles east of Bonda, 500 ft. Sept. 22) Full set, but petals generally fallen off small bits with petals put in.

880 no name
A vine to 50 ft. Rare in damp forest, 800-2000 ft. Flowers Aug.-2000-ft. - Sept. The specimens were collected near Masinga Vieja, forest by a river about 800 ft. Sept. 20 Full set, fine.

880 Fruit, Forest, 1000 ft. Agua Dulce road, Nov. 23.

881 Aegiphila brachiata C. and S.
A vine to 20 ft. Rare in forest, 500 to 2500 ft. Flowers Dec.-Jan. (The specimens were collected on the Agua Dulce road about 1000 ft. Jan. 8.

881 (already sent in) Specimens collected 3 miles South of Mamatoca 100 ft. April 11. The specimens sent before were from the same locality, but by a mistake I stated that they were collected above 1000 ft. I have never seen the plant except in the locality mentioned above. It is a loosely twining vine. Full set, fine.

882. (no name)
A vine with tendrils, to 40 ft. Occasional in forest and thickets below 1500 ft. generally on damp soil, in ravines, near streams etc. Flowers Dec. -Feb. yellowish white. Specimen was collected on the Agua Dulce road about 250 ft, Jan. 11 Full set, good. 883

883 (no name)

A high vine. Rare in dry forest not far from sea-level. I know only the fruit. The specimens with pointed leaves was collected in a ravine, 3 miles northeast of Bonda, about 300 ft. Feb. 3, the other near the seashore at Playa Braba, Feb. 10. 5 specimens, fruit.

884 Forsteronia corylifolia Griseb.

1500 ft. May. Note lost (a vine?). 2 specimens.

884 (already sent in) Specimens collected miles South of Mamatoca, dry thickets, 100 ft. May 25. This is a twining vine, 25 ft. high. I have observed it only in the locality mentioned above and at Cacagualito, and it is rare at both places. The stem has an abundant milky sap. Petals whitish, stamens orange. 851 appears to be the fruit, and I have dropped that number.

No. 885 Combretum Jacquini ~~Spiesbans~~ Griseb.

A scandent shrub, to 30 or 40 ft. Pretty common locally below 1500 ft. Blossoms about Sept. 1 (first observed Aug. 29) The blossoms adhere to drying paper, so that it is difficult to preserve them well; and the plant is particularly subject to attacks of the leaf-carrying ants.

Specimens from Bonda, Sept. 1. Full set.

885 Specimens collected near Mamatoca, Aug. 29, showing variation in the leaf.

886

(no name)

A high vine, rare in the dry forest region below 1500 ft. The specimen is from a ravine near Mamatoca (250 ft) Aug. 1. 19 spec'ns scant.

887,

(no name)

A scandent high shrub. Rare in the dry forest region below 1500 ft. Blossoms Aug.-Sept. Specimens are from forest on road from Mamatoca to Guayra, 400 ft. Aug. 27. Full set, good; a little scant.

888

A tree or scandent shrub, to 20 ft. edge of forest near Cacagualito, about 1800 ft. Aug. 9 The plant was in a mass of thick shrubbery over a precipice. I could only reach one or two branches and could not observe the habit. 4 specimens. Poor.

889 Hippocratea celastroides H.B.K.

Scandent, to 15 ft. Dry forest, hills below 800 ft. 5-7 miles east of Cienaga, Sept. 12. The specimens obtained are in bud; after our presses were full I saw others in full flower, but did not get any. The flower is white. Full set, good.

889 (specimens already sent in) Specimens collected near Playa Braba, in thickets on a dry hill, overlooking the sea. Feb. 10. and Apr. 16 Like other members of the group it is a vine, some of the branches transformed into tendrils. Flowers greenish.

890 Hippocratea ovata Lam.

A vine, Cacagualito, forest 1500 ft. May. Probably the same as 891. No specimens except for N.Y. and Carnegie.

891 Hippocratea ovata Cass.

A vine, to 20 ft. Portions of the stem and small branches are transformed into stray tendrils. Flowers in Jan. Rare in the dry forest region set below 1500 ft. The specimen is from a ravine near Bonda, Jan. 10 Full set

892 Hippocratea ovata Cass. A vine, Forest, Cacagualito, 1500 ft. May. 8 specimen.

A vine, to 40 ft. Occasional in the dry forest region below 1500 ft. generally on river banks. Flowers in Aug. and again in Nov. (specimens are from Bonda, Aug. *Full set, fruit good*)

894

(no name)

A vine, to 40 ft. Occasional in wooded valleys, 500-2000 ft. Flowers in Aug. (specimens from Masinga Vieja, 800 ft. damp forest by river, Aug. 28. (probably a slight variety of No. 893. *fruit good*)

895 Rourea glabra -400

A shrubby tree with long branches which are sometimes scandent; grows to 40 ft. Several seen on the river shore near Bonda, Sept. 2. The differences of calyx and stamens hold good in a large series of both forms; and No. 400 is a true vine, while this is properly a tree. The flowers of both are white. Full set; fairly good; often 5 leaflets.

896 Rourea glabra H.B.K. A twining vine, to 40 ft. Damp forest by river at Masinga Vieja, 800 ft. Aug. 22, 2 species, poor.

897

A tree to 40 ft. Forest, generally near streams, Common at Cacagualito, 1500 ft. Collected May 15

897 Specimens from Don Amo, 2500 ft. March 12. Full set.

898-(already-e-----)

13

898 Eugenia Jambos L. A tree, forest ravine near Jiracasaca, 2500 ft. Jan. 2

898 (already sent in) Specimen from Onaca, 2500 ft. Dec. 5 This is rose-~~e~~ple (Jambosa) cultivated but grows wild in the mountain forest near streams, called Manzanita Full set, good.

899 Citrus limetta Risso. Wild lime. Forest near Masinga Vieja, about 1000 ft. Jan. 12. This species or variety is found occasionally in thick forest. The fruit is small. As lime trees attain a great age it is possible that the specimens seen were originally planted by the Indians in places now overgrown with forest. The Indians had a settlement at Masinga Vieja (as the name implies) though there are now no houses within five miles of the place. *Full set, fruit good*

900. Rinorea marginata (Tr. et Pl.) Rusby.

A small forest tree. Ravine near Jiracasaca, 2500 ft. Jan. 13. Full set. Fruit for N.Y.

900 (already sent in) Specimens collected in forest 6 miles northeast of Masinga, 2000 ft. June 1. This is a small tree to 12 or 15 ft. local and rather rare in damp forest, 500-2500 ft. Flowers white.

901 A forest tree, valley near Jiracasaca Jan. Jan. 13. Flower white, fragrant, Full set, good.

902 Capparis macrophylla H.B.K. Capparis cynophallophora L. (which was latest. (2 specimens were distinct))

A small tree. Forest, Agua Dulce, about 2000 ft. Jan. 18 The base of stamens crimson; rest of the flower with calyx white.

902 (a specimen already sent in) A small tree. The specimens are from mountain forest on the Agua Dulce Road, Feb. 2. The flower is fragrant.

14 good, but small specimens.

903. Cupania Americana L. (-446)

A high forest tree, Agua Dulce, about 200 ft. Jan. 18 Full set, but only 20 have leaves, and many of these not good.

879 Fruit, presumably of this species. Collected in forest 5 miles south of Mamatoca,
500 ft. Nov. 22

- 904 Matayba scrobiculata Aguak Dulce, about 2000 ft. Jan. 18
Brought in by a native collector; I do not yet know whether it is a tree or a vine, and specimens do not show whether inflorescence is terminal or lateral. Information will be sent later. Full set, good.
- 905 Dollicarpus semidentatus Garcke (=812)
/"Perhaps different, verified July 16. stet. H.H.S.
A high vine. Forest near Agua Dulce, about 2000 ft. Jan. 17.
Full set. fairly good.
- 906
A tree; among my December collections, without any note. Probably ϕ is from Onaca, about 2500 ft. No specimens except one for N.Y.
- 907
A tree. Forest, Agua Dulce, about 2000 ft. Jan. 18. Full set. Flowers were collected near the same place in Oct.
- 908
908 Astronium Planchonianum Engl.
A tree to 40 ft. Common in dry forest below 1000 ft. Flowers in Jan. pale yellowish; the buds are dark purple. The flowering tree is leafless but I send the leaf which is said to belong to this species; this leaf is found in Jan., on trees without flowers. (compare 909) Full set.
- 908 Dissecting Material A common tree below 1200 ft. I have not obtained leaves and flower from the same tree, but have no doubt that this leaf belongs here, and that No. 909 is the same, from No. 910 it differs and the leaves having one or two more pairs of leaflets, which are always serrate or undulate, as well as by the flowers. Pannicle often 15-18 inches long.
- tr
- 909 =908 Astronium Planchonianum Engl. (?)
A tree, 35 ft., near Bonda, Jan. 10. I give this a number provisionally on account of the leaf; two or three old leaves were still on the tree from which the flowers were collected and one of these is sent with the specimen. This leaf differs so much from the one said to belong to No. 908 as to indicate a distinct species. It may be that the natives are mistaken and that the leaf sent with 908 is of a species which I have not yet seen in flower. The question will be settled later.
- Tree, 40 ft. Dry forest near "Plant", Bonda Jan. 10. Leaf of tree was serrate. Record says the other leaves are the same.
- 910 Astronium fraxinifolium Schott.
A forest tree. Road to Agua Dulce about 1200 ft. Jan. 16.
- 910 (already sent in) Specimen from Bonda, 150 ft. Feb. 16 This is a common tree of the dry forest, below 1200 ft. growing to 40-60 or 50 ft. The leaves have 5-7 leaflets, rarely if ever more; they are deciduous about the time of flowering. Commonly the leaflets are not serrate, or only obsoletely so, as in this specimen. The flowers and leaves are from the same tree, the leaves collected in Jan. Full set, some leaves poor.
- 911 A tree, to 35 or 40 ft. Occasional in dry forest below 1500 ft. Flowers Dec.-Jan. The flowering tree is leafless. (Specimens collected near Masinga, about 600 ft. Jan. 22) Full set of flowers and about 18 leaves have poor leaves.
- = 1738
- 912 Spondias lutea LA high forest tree, valley at Jiracasaca, 2500 ft. Jan. 13. The leaves drop to pieces in drying. Full set; leaves broken.

904. - Agua Dulce, about 2000 ft. Matayba acrobiculata Radlk.
Jan. 18 Brought in by a native collector; U do not yet know whether it is
a tree or a vine, and specimens do not show whether inflorescence is
terminal or lateral. Information will be sent later.
905 Dollicarpus semidentatus Garcke (812) Perhaps different; verified J
905. A high tree vine. Forest near Agua Dulce, about 2000 ft. Jan. 17 Full
Full set. Fairly good.

906.

913. Polymnia Siegesbeckia DC.

--106--

Suffruticose, 5 ft. Open places near streams Agua Dulce, 2000 ft. Jan. 17
Full set, fair.

914 Willoughbæa leiostachya (Benth.), Kuntze. Twining, to 30 or 40 ft.
Common locally in damp forest, 800-2500 ft. Flowers in Jan. -2500-ft.
(specimens were collected on the road from Bonda to Don Amo, Jan. 18.
Full set, good.

915 Willoughbæa angularis (H.B.K.) Kuntze (-635)
A high twiner, rare. The specimen was collected above Agua Dulce, at about
3000 ft. Jan. 19. Good, full set.

Dissecting Material A vine to 25 ft. generally ^{in dry forest} on the borders of clearing
or in second growth; not common. My specimens of this form with angulated
leaves were all collected between 2000 and 3000 ft. In this form the leaf
leaves, except the floral ones are generally angulated, and the plant is
commonly less ~~pre~~flowered than its variety, No. 635

916 Willoughbæa (~~H.B.K.~~ Guaco H.B.K.)
A twining vine Agua Dulce, about 2000 ft. Jan. 18.

816 (already sent in) A specimen from Don Amo, about 1500 ft. Jan. 14. I
have the species from the Rio Piedras, 500 ft. Jan. 14. ~~I have the Dec.~~
Dec. 29. It is a vine, to 25 or 30 ft. rare in damp forest. Flower white
Full set, good.

917 Willoughbæa Orinocensis (H.B.K.) Kuntze
Twining, 8-10 ft. observed only at Quebra Concha, 4 miles east of Bonda;
by a stream not far from sea-level. Jan. 11.

917 (already sent in) Specimen collected below Valparaiso, 4000 ft. border
of a clearing, Jan. 18. I find that this is generally a mountain species
being quite common from 1500 to 4000 ft. It grows to 25 ft. Flowers
principally Dec.-Feb. white. The mountain plants have larger leaves
with smooth veins, but the form of the leaf and other characters are like
those of the specimens collected in the lowlands. Full set. Part had
moulded but were thoroughly cleaned.

918 No specimens, no label, no name.

919 No specimens, no label, no name.

920 Eupatorium Vitalbæ DC.

A loosely twining vine, to 10 or 12 ft. Obtained only on the road to
Agua Dulce, about 1000 ft. open, damp places in forest, generally near
streams, Jan. 11. Full set, good. Specimen from below Las Partidas sent
to New York.

920 (already sent in) Specimen collected below Las Partidas, about 3000
ft. Jan. 28. Specimens from this locality are a little more hairy, the
leaves are less tapering at base, and the flowers are bright rose-
colored; the flowers of specimens collected at lower altitudes are pale
rose-colored. The species is rare.

921 Elephantopus spicatus ~~Wright~~ Aubl.

Upright to 2 ft. Less common than No. 675, though not rare, generally in
rather shady and damp places below 5000 ft. Flowers Dec. 15-Jan. The
specimen is from the Agua Dulce road, about 1000 ft. forest, Jan. 9
6 specimens.

921 Specimen from Bonda, Dec. 22

~~922, ---7-~~
922 = 671 Upright to 5 or 6 ft. Several plants seen in a swampy thicket
near Bonda, (250 ft.) Dec. 29. Most of them were nearly leafless.
Same as 671.

923 No specimens, no label. *Aegiphila mollis* H.B.K.

924 *Erythrina carnea* Ait.

A shrub or small tree, 6-10 ft. Occasional in dry forest and thickets below 3000 ft. Flowers Jan.-March, light red with an orange or salmon tinge. The flowering plant is nearly or quite leafless. Stem and branches armed with recurved prickles. Specimen is from Jordan, 800 ft., Feb. 22; the young leaf from Bonda, May. Seeds scarlet; 8 specimens.

925 *Clitoria Fendleri* Rusby sp. nov.

A tree, 10-35 ft. Occasional in dry forest and on the border of open land 500-2500 ft. Flowers Jan.-Feb. dark, dull purple. Leaves are deciduous about the time of flowering. Specimen is from the Minca road, 1200 ft., Jan. 7; the fruit from Masinga de la Vieja, 800 ft., March. Full set. Some leaves ~~press~~ poor.

926 *Acacia polyphylla* DC.

Tree, near Bonda, Dec. Flowering specimens were also collected earlier in the year. I had confounded this with No. 293, but the character of the glanduliferous petiole seems to be constant and the fruit, if I have correctly ~~referred~~ ^{referred} it, is larger. (10 specimens) with fruit.)

927 *Inga eriocarpa* Benth (* 106)

A tree, 40 ft. Banks of a stream near Bonda, 250 ft. Apr. 23. The leaves have constantly 4-5 pairs of leaflets; Staminal tube exerted etc.

In collecting I had confounded this form with No. 106, and I cannot say whether it is common or rare. Full notes will be sent later. 928-

918-A tree, to 40 or 50 ft. Pretty common in damp forest, especially near streams, 800-3000 ft. Flowers Jan.-Feb. (specimen was collected by a stream, road from Bonda to Onaca about 1000 ft. Jan. 12.)

No specimens except for N.Y. and Carnegie; no fruit. No. 928

929 *Pithecolobium cauliflorum* Mart.

9-928-

929 (var. of No. 24 ?) A tree, 30 ft. Forest by a stream near Agua Dulce, 2200 ft. June 8. Flowers white. The leaflets are constantly broader than those of No. 24, and the calyx appears to be different.

28 specimens, rather poor.

930. *Lonchocarpus latifolius* H.B.K. =933, ~~934~~ 93

Tree 40-50 ft. Rare in dry forest, hillsides, 500-2000 ft. Flowers in Jan. yellowish tipped with dull purple. The buds are deep purplish. Leaves are deciduous about the time of flowering (specimen is from the Agua Dulce Road, about 800 ft. Jan. 6)

931 *Hermesias Ariza* (Benth.) Kuntze.

A tree, to 30-40 ft. Local in damp forest, 1000-3000 ft. Flowers Jan.-Feb. light red (specimens are from forest near Don Amo, 1000 ft. Feb. 1

16 specimens; fruit for N.Y. and Carnegie.

931 ? Cacagualito, Jan. 4

932 *Enterolobium Timbourva* Mart.

A large tree, to 80 ft. or more. Common in dry forest below 100 ft. Flowers Dec.-May. The leaves are renewed about Feb. or March, and branches may be leafless for a time. Flower white. Specimen was collected near Matoca 100 ft. March 15 (fruit sent separately) Full set.

933 *Lonchocarpus latifolius* H.B.K. (=930)

Tree, 40 ft. Rare The specimen is from forest by the shore of a stream, road from Bonda to Don Amo, about 500 ft. Feb. 8. Two or three trees seen in this place; not observed elsewhere. Flowers deep purple.

934 Lonchocarpus latifolius H.B.K. (-930)
A tree, 20-30 ft. Occasional in forest below 2000 ft. Flowers Feb.-March, rosy, the base of the petals white. Specimen was collected near Masinga Vieja, about 1000 ft. Feb. 4.

N.B. I have distinguished provisionally several plants which are closely allied to this, but differ in the color of the flowers and, to some extent, in the leaves. The buds in all are deep purple, and perhaps the flowers change in color after opening; I do not think that this is the case, however, as I found no change in a tree which was observed for several days (No. 930) I find also that the corresponding variations of leaves and flowers are constant in specimens from different localities - plants.
Good, full set.

934 Fruit referred to this form, near Masinga 250 ft. Apr. 25.

935 30
A tree, 15-30 ft. Occasional in dry forest below 1500 ft. Flowers Jan.-Feb. The flower is white, more or less tinged with rosy, base of standard with a green line. The leaves are deciduous about the time of flowering. The flowering specimen was collected near Bonda, Jan. 9; fruit from the Don Amo road, about 500 ft. Apr. 8. Full set with fruit, good, but leaves poor.

936 A spreading tree, to 50 or 60 ft. It is pretty common near Minca, 2000 ft. on damp hillsides; and I find it growing in swampy forest 3 miles or south of Mamatoca, 100 ft. Flowers Jan. -March, orange; they grow in small clusters on the sides of young branches. Specimen is from Minca, Jan. 19. Full set; leaves poor. Flowers scant, some broken or moulded.

937 Lindsaea Guyanensis Dry. (Label not marked as sent. (var. of 938?)
Las Nubes, 4500 ft. at border of forest. The sori are interrupted in all my specimens. 49 specimens. Common near *Alto de Cielo*, 5000 ft.

938 Lindsaea Guyanensis Dry. (-937)
Local in thickets and on the border of forest, 3500-5000 ft. Specimen is from the Cuaco Mountain, 4500 ft. Sept.
The sori are continuous in numerous specimens from several localities. Occasionally the lower segments have one or two branches.
19 specimens.

Common in damp forest, hillside near Victoria 3500 ft. July 29.

939 Didymochlaena lunulata Desv. Common locally in damp ravines, mountain forest, 4000-6000 ft. Specimen is from Valparaiso 4500 ft. Feb. Leaf 4-5 1/2 ft. high. 33 specimens.

940 Adiantum pulverulentum L. Common locally in damp clearings and thickets, 2000-4000 ft. Specimen is from Jiracasaca, 2500 ft. Sept. 50 specimens.

941 Adiantum villosum L. (var. or sp. nov.) (Compare 944 etc.) Label not marked as sent.
Local in forest hillsides, 1000-3000 ft. Specimen is from the Agua Dulce road, 1000 ft. March. Primary segments 3-9, commonly 5. The lower secondary segments frequently smaller. 32 specimens.

942 Agua Dulce Road 800 ft. July 26

941 Specimens from the Don Amo Road, forest, about 800 ft. Sept. 30. This fern ranges as low as 350 or 400 ft. in forest near streams; it is common locally. Lateral segments 0-4 jugal.

942 Adiantum intermedium Sw. Label not marked as sent.

Dry forest, hillsides, 1000-3500 ft. Local and rare. Specimen was collected near Minca, 2000 ft. Aug. 50 specimens.

943

Forest, hillsides and glens, 1200-4000 ft. Common locally. Specimen is from Victoria estate, 3500 ft. March. Variable, most specimens are glaucous beneath, but these pass into others which are green on both ~~sides~~ sides. 50 specimens 943-~~var.~~

943 var.

944 =947 Specimen collected below Masinga Vieja, damp forest, about 500 ft. Sept. 21. I have a large number of specimens from this and other localities below 1500 ft. and the form is very constant. Rarely there are only two lateral segments.

944 Agua Dulce Road, forest, 1000 ft. March. 18 specimens.

945,

Common on trees, damp forest, 5000-6000 ft. Specimen is from the Sierra de Onaca, 6000 ft. Aug. 26. 17 specimens.

946 Adiantum villosum (var. of 941?) Near Cacagualito, forest, 2000 ft. May. I have only one leaf. (a single segment retained for a marker.) No specimens except for N.Y. 9 segments; belongs with specimens sent to N.Y.

947 Adiantum villosum L. (=944) Label not marked as sent out.)

Forest, damp places on hillsides, 1000-3000 ft.; common. Specimen is from the Agua Dulce Road, 1200 ft. March. var. of 941? I have separated several forms which may, perhaps, be inconstant varieties. 38 specimens.

947 30 additional specimens.

947 Specimen collected below Masinga Vieja damp forest near a stream, at about 800 ft. Sept. 21. Common in this locality. The sori are sometimes contiguously interrupted, but only near the bases of the segments and I can find no specimen connecting this with No. 2435.

948

Local and rather rare in damp mountain forest on ridges at about 6000 ft. Specimen is from the Sierra del Libano, March. Grows on the ground or on rocks. 13 specimens, some not good.

949 Moderately common in forest and thickets, generally on hillsides, 5000-3000 ft. Specimens are from Cacagualito, 1500 ft. May. 50 specimens.

949 Adiantum lucidum Sw.

950 Moderately common in shady and damp places, banks of streams, glens & etc. Adiantum macrophyllum Sw.

500-3500 ft. Specimens are from Cacagualito, 1500 ft. May. Generally grows on rocks, 50 specimens.

951 Adiantum polyphyllum Willd.

Common on damp banks, forest, 500-4000 ft. Specimens were collected near Onaca, 2000 ft., Dec. Petiole about as long as the leaf, which may be 3 ft.; 3-4 pinnate ~~sect~~ at the base. The ultimate segments vary so much in size on different plants, that they often look like distinct species. 50 specimens, some poor.

952. Adiantum patens Willd.

--110--

Local in thickets, sometimes in clearings or on open land, 2000-3500 ft. Specimen is from Jiracasaca, 2500 ft. Sept. 48 specimens.

953 Adiantum tenerum Sw.

Common on damp banks, forest, 5000-4000 ft. Specimen was collected near Onaca, 2000 ft. Dec. 50 specimens, many poor.

954 Adiantum convolutum Tourn.

Observed only near Jiracasaca, 3000 ft. on a damp, shady bank, edge of forest, Sept. 8 specimens.

955 Adiantum concinnum Local in dry forest and thickets, sides of glens or banks, 1000-3500 ft. Below 2000 ft. the plants are small. Specimen is from Jiracasaca, 2500 ft. Sept. 47 specimens, many small.

956 Adiantum lunulatum Burm.

Common locally in dry forest, shady banks or glens, below 2000 ft.; one of the few ferns of the dry forest region. It springs up with the first rains, in May or June; The rachis is sometimes proliferous. In Feb. and March it withers, except in damp situations; specimen collected near Bonda, 150 ft. Aug.. 50 specimens.

9567a Variety collected on the Agua Dulce Road, 100-2000 ft. forest on banks, Nov. 21. All the specimens from this locality have longer segments than the ordinary form, with broader lobes, and the sori extend nearly across the lobes instead of occupying only the middle. Proliferous stems were very common but they are rare in the other form.

957 Top of the San Lorenzo Ridge, thicket, about 7500 ft. March. I found only three or four leaves and have not observed the species elsewhere. No specimens except one (small) for N.Y.

958 Specimen from Alto de Cielo 5000 ft. Dec. 12. This form occurs locally on damp rocks, in ravines, 3500-5500 ft. It appears to be rather rare. It is often associated with No. 2449, but has quite a different appearance.

956 13 additional specimens.

958

Damp mountain forest, 4000-6000 ft. principally on rocks by streams. Specimen is from Las Nubes, 4500 ft. Feb. The segments vary in form but are generally acuminate and the apex of the leaf is often very attenuate; sori near the base as well as on the outer part of the segment, and longish; veins nearly attaining the margin; petiole dark, not margined, and the rachis only slightly so. 22 specimens.

959 Asplenium pulchellum Raddi.

Local and rare in dry forest and on rocks by streams in open places, 2000-4000 ft. Specimens are from the Victoria estate, 3000 ft. March.

This may prove to be a dwarf variety of No. 2449; specimens growing in shady and damp places are hardly distinguishable from that species, except in size, and number of segments. The petiole is greenish. 30 specimens.

959 Specimen from a glen below Don Amo, about 1200 ft. on rocks close to the water, Sept. 30. In my previous note I stated that this fern grew in dry forest, but I should have added that it is in forest close to stream. Generally it is found on rocks close to the water, where it is overflowed after heavy rains.

960

960 Common locally in damp mountain forest, 000-6000 ft. generally on rocks or logs. Specimens are from the Sierra del Libano, 5500 ft. March 6
37 specimens.

960 Variety from Las Nubes, 4500 ft. open place by a stream, on a log. Other forest ferns, when they occur accidentally in open places, show similar dwarfed forms with heavy sori.

961 Asplenium hastatum Kl. Damp mountain forest, 5000-6500 ft. on trees; common locally. Specimens is from the Sierra del Libano, 5500 ft. March. This appears to be well characterized by the broader segments, veins running into the serratures etc. 6 specimens.

962 Asplenium macilentum Kze. Forest, 3000-6500 ft. on trees; moderately common. It is frequently seen on logs in damp clearings, the leaves being then thicker and more or less dwarfed. Specimens were collected above Onaca, 4000 ft. Aug. 18.
50 specimens.

962 Variety found on logs in clearings. This specimen is from Jiracasaca, 2500 ft. Sept.

963 Asplenium rhizophorum L. Rare in mountain forest, on ridges, 5000-6500 ft. Specimens are from the Sierra del Libano, 6000ft. March 6. Also observed on the Sierra de Onaca, the San Lorenzo Edge etc., but I have not seen it in ravines. Through the form with pinnatisect segments it passes into No. 976

964. Rare on trees, sometimes on rocks, mountain forest, 3000-6000 ft. Specimens was collected above Onaca, 4000 ft. Aug. 18. 11 specimens.
964 Asplenium preemorsum Swz.

965 ((var. of 961 ?) Damp forest, Sierra del Libano, 5500 ft. on a tree, March 6. I collected only one root, but have seen others specimens when I was not botanizing; some of them were over 5 ft. long. No specimens except one for N.Y. Carnegie and Underwood.

965 Asplenium harpedides Kze.

966 Asplenium formosum Willd. Forest, 500-2500 ft.; common on banks and rocks. Specimens are from Masinga Vieja, 1000 ft. Aug. 50 specimens, all with roots.

967 Damp forest, Sierra del Libano, 5500 ft. March 6. Observed only in one place, where it was quite common, growing generally on the ground. The lower segments are always short. 28 specimens, 6 with roots. I have a few specimens of this fern from the Sierra de Onaca, 4500 ft., -6000 . Aug. Occurs on the Morqueta to 7000 ft.

968 Shady ravines in mountain forest, on rocks by streams, 3500 -5500 ft; local and rather rare. Specimens were collected above Onaca, 4000 ft.-Aug. Aug. 18. The terminal segment ϕ is subdeltoid and nearly entire above, and the sori extend downward to the forking of the vein. 50 specimens.

968 Variety from Alparaiso, 4500 ft. Feb. on rocks in the bed of a stream more or less exposed to the sun.

969 Asplenium foeniculaceum H.B.K. Local on shady, damp banks below 1500 ft., in the dry forest region; it appears only during the rains. Specimens were collected 7 miles east of Bonda, 150 ft. Nov. 50 specimens.

970 Diplazium crenulatum Bak. var.

970 Diplazium crenulatum Bak. var.

Rare in damp, shady glens above Onaca, 3500-4000 ft; I have found it ~~only~~ only on rocks near cascades. This may be a variety of No. 938, due to ~~situation~~ situation; but it is much broader in form, the lower segments little decrescent., segments larger and rachis and veins less hairy. Compare No. 987. 50 specimens. 974

~~Rare on banks in forest or shady places, below 1500 ft. Specimens were collected near Masinga 500 ft. Nov. -- 50 specimens. -- 971. (not named)~~

971 Rare on banks in forest or shady places, below 1500 ft. Specimens ~~xx~~ were collected near Masinga, 500 ft. Nov. 50 specimens.

971 Specimen collected 4 miles east of Bonda, 400 ft. Nov. 12. This species is local and rare, generally below 2000 ft.; I have found it on a hill overlooking the sea and not more than 150 ft. above sea-level. Commonly it is associated with 2558, or 969, or both; but it is always easily distinguishable.

972 Asplenium pumilum Swz.

Local on sheltered banks in the dry forest region, ranging from 2500 ft. nearly to sea-level; it appears only during the rainy season. Specimens were collected near Onaca, 1800 ft. Dec. 50 specimens.

973 Asplenium cicutarium Swz. var.

Common in damp forest, 1200-3000 ft. Specimens are from Mamacasaca, 2000 ft. May. Commonly two lower segments are somewhat shorter and below these there may be one or more pairs of very short or abortive segments, but the latter are often wanting, and in some cases the lower segments are the longest. 24 specimens, 2 or 3 roots poor. Roots for N.Y. & Carnegie.

974 (var. of 973 ?)

Mountain forest, 4000-6500 ft. principally in damp ravines, on rocks. Numerous specimens from different localities differ constantly from No. 973 ~~in~~ in having the secondary segments deeply parted or divided, giving the leaf a more finely cut appearance. The lower segments are always much decrescent with a number of very short segments; the latter are commonly wanting in No. 973, as I have found no intermediate forms, it would appear that the ferns are separable, at least as varieties.

No 974 occurs in very damp situations; 973 in comparatively dry ones, on mountain sides. Specimens are from Las Nubes, 4500 ft. Feb. ~~xx~~.

23 specimens mostly with roots.

975 Asplenium rhizophorum tripinnatum Hook.

Don Amo Mountain forest, principally in ravines, 3500-6500 ft; common locally. Specimen is from Las Nubes, 4500 ft. Feb. very variable, and the different forms are sometimes pretty constant; but the distinctions break down when large numbers of specimens are examined. I have given ~~me~~ numbers to three of these varieties, but they can only be regarded as extreme forms, the differences being, perhaps, due to situation. The species grows on the ground or on rocks. 31 specimens.

975 Specimen from the Sierra del Libano, 6000 ft. in a damp ravine, March Passes into 1127

975 Specimen from Las Partidas, 3500 ft. March. This is a common form below 5000 ft. and also occurs higher up. It ~~passes~~ passes into Nos. 976, & 973

976 Asplenium rhizophorum bipinnatum

Mountain forest, 3500-6000 ft.; Common principally in very damp situations near streams etc. grows on the ground, sometimes on rocks or trees. Specimen is from the Sierra del Libano, 5500 ft. March. 13 specimens.

977

--118--

Rare in damp forest near streams, 4000-6000 ft. Specimen is from Las Nubes Nubes, 4500 ft. Feb. Leaf ~~4500~~ ⁴³⁰⁰ ft. Bak. high, somewhat rigid, lower segments slightly decrescent, It looks like a large Asplenium Aspidium. 30 specimens.

978 Diplazium grandifolium Swz.

Local in damp mountain forest, in ravines and on steep slopes, 5500-6000 ft. It is very abundant in some places above Onaca, where the specimen was collected, Aug. 16, at 4000 ft. 50 specimens.

979

Moderately common in damp forest, 3500-5000 ft. Specimen with root is from above Onaca, 3500 ft. Aug. 16; the other from Valparaiso, 4500 ft. Feb. Always smaller and narrower than the allied forms, and constant in the form of the segments, alternate apex etc.

43 specimens, some poor. attenuate

980

-989

Common in damp forest glens, Sierra del Libano, 5000-6000 ft. Collected in March. Differs constantly from No. 981 in its somewhat broader segments, the base very oblique, secondary segments acutely serrate, midribs of primary segments channelled above. As far as I know No. 980 occurs only above 5000 ft; between 4000 and 5000 ft. the allied form is No. 979 which is certainly distinct. 8 specimens.
and No. 981 below 4000 ft.;

981

Moderately common in damp forest, 1200-3500 ft. Specimen is from Cacagualito, 1500 ft. May. 19 specimens.

982

Local and generally rare in deep, shady glens, 3500-5500 ft. growing on wet rocks. Specimen was collected above Onaca, 4000 ft. Aug. 18.
50 specimens. ~~983-Gymnopteris-suberecta-Bak.~~

983 Gymnopteris suberecta Bak.

Climbing on tree-trunks and rocks by a creeping stock, to 20 ft. Rather rare in damp mountain forest, 3000-5000 ft. Specimen was collected below Valparaiso, 4000 ft. March. 1 specimen and 1 sterile leaf.

984

Local and rare in glens in the mountain forest, 2000-3000 ft. ; grows on the ground, generally near streams. Specimen was collected near Agua Dulce, 2500 ft. Aug. 50 specimens.

984 Don Diego. Ravine near river forest May 7

985

Rare. Observed only in mountain forest above Onaca, about 4000 ft. Aug. 15, growing on rocks. 50 specimens.

986

Erect, 3-5½ ft. It is constant in form, but differs from allied ferns in having the primary segments always pinnatifid, the secondary ones being entire; consequently, large secondary-segments--- leaves have correspondingly large secondary segments, and if only portions of leaves from large and small plants are compared, they look like different species. This character is universal, and striking.

I have found this species only along the deep glen called Quebra de las Nubes, where it occurs from 3500 to 5500 ft. and is common about 5000 ft. in damp forest. Specimen was collected at 4500 ft. Feb. The lower leaves are a little decrescent. 17 specimens.

987 (var. of 988 ?)

3 ft. high. Forest, glen below Valparaiso, 3500 ft. March. Rather larger than 988, with larger segments, and more distant veins, and the sori not so close to the midrib. I have only portions of two leaves, and the characters may not be constant. No specimens except for N.Y., Carnegie and Underwood.

988.

Occasional in damp forest near streams, 2000-5000 ft. Specimen was collected above Onaca, 3000 ft. Aug. 15. very constant in form, the lower segments being a little decrescent; it is also smaller than the allied species. Phachis, veins and sometimes the lower surface of leaf puberulous. About 25 specimens.

989

Damp forest, common from 1200 to 4500 ft, principally in glens/near water. Leaf generally 3-4 ft. long, broad at base, quite constant in form. Specimens are from Cacagualito, 1500 ft. May. 50 specimens.

990 Asplenium serratum L.

Damp forest 1500-5000 ft. ;rather rare .Grows on rocks and or trees, rarely on the ground. Specimen was collected near Cacagualito, 1800 ft. May 19 specimens.

991 Hemidictyum marginatum L.

Deep glens in mountain forest, generally on cliffs ;overhanging species 2000-5000 ft; not common. The leaves are often 6 ft. long. The color is light green giving the fern a singularly beautiful appearance, as the light strikes through it. Specimen was collected below Valparaiso, 4000 ft. Feb. 50 specimens.

992

Common in glens, damp mountain forest, 3500-5000 ft. Specimens were collected near Valparaiso, 4000 ft. Feb. Segments about 9-14 jugal. Lower pair a little shorter. the stem has no nodes. 50 specimens.

Young of 992 ? Banks of stream, Quebra de Las Nubes, deep glen, 3500 ft. Aug. 16. Not sent. *young of 992 ?*

993 Hymenophyllum sericeum Swz.

Sierra del Libano, 5500 ft. damp forest, on the lower side of a dead tree lying across a gully, not observed elsewhere, collected in May. 2 specimens. 994

994 Dryopteris tetragona (Hook) Kuntze.

Common in shady, damp places, especially flat land in the forest near streams, 500-4000 ft. Specimen was collected near Jordan, 800 ft. May. The apical segments are generally irregular and the fern is sometimes proliferous. 50 specimens ;full set.

994 Foot "D" Don Diego, May 10. Common in coffee plantations and low forest.

995

Moderately common on hillsides, mountain forest, 5000-5500 ft. Specimen was collected on the Agua Dulce Road, 800 ft. Jan. 7 50 specimens.

996

Erect, 3-4 ft. segments 15-20 jugal, lowest conform ,Moderately common in mountain forest, 1500-4000 ft. generally on steep slopes. Specimen was collected above Onaca, 3000 ft. Aug. 16. 50 specimens.

997 Dryopteris carapensis (Hook.) Kuntze.

Local and rare in damp and somewhat open places, 3500-5000 ft. Specimens are from Valparaiso, 4000 ft. Feb.. (continued)

The secondary segments are constantly broader and less numerous than those of No. 998, more not so near the margin, veins about 7-jugal (9-jugal in No. 998) and there is a scale or gland at the base of each segment. 12 specimens.

998 Phegopteris rudis (Kze) Fér.

Specimen from Alto de Cielo, 5000 ft. damp forest on the edge of a clearing, Dec. 15. The species occurs in ravines near the same place. This fern has a wide range, from 3500 to about 8000 ft., but it is local and generally rare; plants growing in ravines have the sori nearer to the margin, and the lower segments abruptly decrescent. No. 2452 is the same.

998 specimen from damp forest near the top of the Horqueta Mountain, about 8000 ft. Dec. 28.

998 Mountain forest, generally on steep slopes, 5000-5000 ft. Specimen was collected above Onaca, 3500 ft. Aug. 17. (Root separate) Found on river shore Minca, 2200 ft.

999. Phegopteris decussata (L.) Fér.

Boggy and somewhat open land. (an open place in the forest) Sierra del Libano, 6000 ft. March 6. I found only one or two poor leaves. These were 5 ft. long, nodding or flexuose, and the lower segments appear to be somewhat decrescent, but were too much broken to show the structure well. 8 specimens, poor.

999 Specimens from the Horqueta Mountain, 7500-8000 ft. on open ridge; moderately common in this locality. The leaf is 5 or 6 ft long and more or less flexuose, the lower segments somewhat shorter.

~~1000-~~

1000 (var. of 1005)?

Shady glen above onaca, 4000 ft. (Aug. 20. I have only three specimens which are similar in size and the small segments broad and somewhat oblique at base. None of my specimens of No. 1005 show a passage into this.

No specimens except for N.Y. and Underwood. Differs from No. 1006 in being more hairy and having no gland at base of segments.

1001

Ferns. Common in damp forest below 4000 ft. principally near streams. Above 1500 ft. it occurs frequently in open places. Specimen is from the Agua Dulce Road, 600 ft. Dec. Leaf commonly 1-2 ft. high, sometimes 3 ft. 50 specimens.

1002

Fern. Rare. Observed only in a swampy valley by a stream, in heavy forest Sierra del Libano, 5500 ft. Collected in March. 9 specimens.

1003

Fern. Damp, generally shady places, sides of ravines etc. 1500-4000 ft.; local and moderately common. The leaf is often 4 ft. or more high. Specimen was collected 6 miles east of Masinga, 2500 ft. March 28. The segments are more distant than those of No. 2453, decrescent below and not so abruptly decrescent below the apex of the leaf. 33 specimens.

1004 ~~99'~~

Fern. Common locally in thickets on damp mountain sides or in open ravines, 1500-3500 ft. Specimen is from Minca 2000 ft. May.

Often associated with No. 2209, but is at once distinguished by its slender form, veins about 8-jugal (12-13 jugal in 2209) and the absence of a gland at the base of the segments. It is sometimes 4 ft. long, and more or less tortuous, supported by shrubbery. The rachis is generally hairy, sometimes glabrous beneath. 50 specimens.

1005. Fern. Specimen from damp forest on the Horqueta Mountain, 7500 ft. Dec. 28. I found only one root.

1005 Local and generally rare in shady ravines, 3500-5000 ft. Specimen is from Quebrada de las Nubes, 3500 ft. Aug. 16. Very constant in form and in the rachis, glabrescent beneath but pubescent above. The sori are more or less linear along the veins, and extreme forms look like *Asplenium*. 46 specimens.

1006

Fern. Open or somewhat shady ravines by streams, on rocks, 3000-5000 ft.; Specimens are from Las Nubes, 4500 ft. Feb. Local and somewhat rare.

Dwarf plants are common. The species is very constant in form and readily distinguished by the rigid leaf and the gland or scale at the base of each segment. 50 specimens.

1007

Fern. Forest, Victoria Estate, 3000 ft. March 17. I have only two specimens. Perhaps a variety of WNo. 1004. No specimens except for N.Y.

1008

Fern *Dryopteris contermina* (Desv.) Kuntze.

Common near streams and in damp, open or shady situations, 500-3500 ft. Specimen is from the Minca Road, 1200 ft. Dec. very variable in size (3 inches to 3 ft.) and in the leaves, rigid in open places and often flaccid in shady ones. Constant in the regular/ly alternate segments, the secondary segments directed obliquely outward, and the lowest longer; the edges crenate-serrate. 50 specimens. The veins are fewer than in allied species.

(may be larger?)

1009

Fern. Occasional on trees, forest, 1200-4000 ft. Specimen is from Cacagualito, 1500 ft. May. No specimens, except poor ones for N.Y. & Underwood.

1010

Fern. Damp forest and clearings, Sierra del Libano, 5000-6000 ft. Erect. 4-5 ft. Collected in March. 9 specimens.

1011 *Polypodium loricum* L. *glaucophyllum* Kze.

Moderately common on trees and logs, forest or somewhat open places, 4000-6000 ft. Specimen is from an old clearing, Sierra del Libano, 5500 ft. March. 5 specimens.

1012 Damp forest,

Fern } or somewhat open places, 2500-5000 ft.; occasional on trees and logs. Generally the sterile leaves are conform, rarely broader and shorter. Specimen is from Las Nubes, 4500 ft. Dec. 50 specimens.

1013 *Campyloneuron repens* (Sw.) Presl.

Damp forest, 1000-5000 ft., generally on trees, sometimes on rocks or the ground, variable in the form of the leaf, but the veinlets are always more or less anastomosing. Specimens are from Cacagualito, 1500 ft. May. 13 specimens.

1014 (var. of 1040 ?) Las Nubes, 4500 ft., open place near a stream, on a log. Probably a variety due to situation. All my specimens of this and 1040 have very short fertile veinlets. 5 specimens.

1015, Open forest on ridges, 5500-7000 ft.; rare. Grows on trees or on the ground. Specimen is from the Sierra del Libano, 5500 ft. March. No specimens except poor ones for N.Y. and Underwood.

1015 *Polypodium loricum* L

1016. Moderately common in mountain forest, 500-5000 ft. Specimen was collected near Escalera de los Indios, 1500 ft. Feb. (Rhizome sent separately.) 50 specimens.

1017 Hemitelia andina Kaulf.
Mountain forest, Valparaiso, 5000 ft. March; a tree-fern to 15 or 20 ft. (Petiole sent separately) 16 specimens.

1018 (var. of 2224 ?)
Specimen from Onaca Estate, 2500 ft. in a damp, wooded glen, near a stream, Dec. 5 I found many plants with fertile leaves, the stem 2-4 ft. high, the leaves 3 1/2- 5 ft. long. Probably this is a dwarf variety of No. 2224.

Lophosoria pruinata

1018-~~Lophosoria~~-pruinata Presl.
Jiracasaca, open cliff by a stream, 2500 ft. Sept. Leaf 4 ft. long; no trunk or only a very short one (Perhaps a young plant, fertile precociously, on account of the open situation) 8 specimens.

1019 Lophosoria pruinata Presl.
Common in thickets and on open lands, ridges, 6000-7500 ft. Specimen is from the Sierra del Libano, 6000 ft. Feb. Not a tree-fern; that is, it has no trunk or only a very short one. Leaves 5-6 ft. long.
5 specimens.

1020
Fern. A tree-fern, to 15 or 20 ft. Common in damp mountain forest, Sierra del Libano, 4000-6500 ft. Collected in March (Petiole sent separately) Leaf generally 6 ft. long. 17 specimens.

1021 Erect, stem about 2 ft., leaf 2 1/2 ft. - 3 ft. Local and generally rare in damp forest near streams, 2000-3000 ft. Specimen is from Agua Dulce, 2500 ft. March. 50 specimens.

1022 Specimen (var. of 1010 ?) Erect, to 5 ft. but fertile when small. Local in open forest and open lands on ridges, 5000-7000 ft. it is common on the Sierra del Libano, where these specimens were collected in March. The petiole and rachis, and to some extent the surface of the leaf, have a gummy exudation, always very evident; I have not observed this in No. 1010. 15 specimens. 1022 Specimen from thickets near the top of the Horqueta Mountain, 7000 ft. Dec. 28.

Tree-fern, 15 ft. Petiole with large scales and small freckles. Rachis spiny below. Above Minca, 2200 ft. Damp forest, river bank, July 28

1023 Local in damp mountain glens, 4000-6000 ft. Specimen is from Las Nubes, 4500 ft. Feb. (Rhizome separate.) Stem about 2 ft., leaf 2-3 1/2 ft., the veins pubescent, 22 specimens.

1024
Fern. Erect, to 5 ft. very common in forest, 1000-5000 ft. and occasionally occurs near streams almost to sea level. Specimens are from Cacagua, 1500 ft. May, 50 specimens; some poor.

1025
Fern. Occasional on trees, damp forest, 4000-6000 ft. Specimens were collected above Las Nubes, 5000 ft. Feb. 30 specimens; some not fertile. Agua Dulce Aug. 12.

1026
Fern. Rare on rocks or trees, 1500-3000 ft. damp forest. The specimen is from Campo Alegre, 1500 ft. Nov. 13 specimens.

1027

Fern Moderately common in damp, mountain forest, 4000-6500 ft. generally on trees, sometimes on rocks. Specimen is from the Sierra de Onaca, 5500 ft. Aug. 22. 17 specimens, mostly poor.

--- On rocks and trees side of irrigation ditch below Masinga Vieja July 24.

1028

Fern. Occasional on trees, damp forest 800-2000 ft. Specimens are from Rio Piedras, 2000 ft. Aug. 50 specimens.

1029 Polypodium polypodioides (L.) Hitch. .

Damp forest, 1000-5000 ft.; moderately common on trees, and sometimes on rocks. Specimens are from Campo Alegre, 1500 ft. Nov. Curles up in dry weather, like most other ferns growing on trees. 25 specimens.

1030 Polypodium plesiosorum (Sw.) J. Sm. - Kze.

Moderately common on trees and logs, principally between 2000 and 4000 ft. but occurs occasionally as low as 1000 ft. variable, and the segments are often irregular. Plants found in open places are thicker, more rigid and lighter green in color. Specimens were collected near Onaca, 2500 ft. Aug. 15. on log in a stream. 50 specimens.

1030 Above Agua Dulce 2800 ft. on rock, July 29. Add to set.

1031 ^{ster} Cyclopetalis semicordata (Sw.) J. Sm.

Forest, Mountain sides, 1000-4000 ft. generally grows on the ground in clumps of considerable size. Erect and somewhat rigid, to 4 ft., commonly 2½-3 ft. Specimen is from Cacagualito, 1500 ft. May. 50 specimens.

Above Agua Dulce 2800-3000. Ridge, July 29. On ground.

1031 6 additional

Don Diego May 6 #1031

1032

Fern. Abundant locally in open forest on ridges, 2000-4500 ft. often covering the ground. Erect, longer leaves nodding, 2-5 ft. Specimen was collected at Campo Alegre, 2000 ft. Nov. (Root separate) 5 specimens (sterile leaves) Fertile leaves for N.Y. and Underwood, and Carnegie.

1033

Fern. Cuaco Mountain, 4500 ft. on a tree, Sept. Not observed elsewhere. No specimens except for N.Y. Underwood, and Carnegie.

Same as 2564.

Morqueta, near top on tree Dec. 28.

1034 Phlebodium aureum L.

Damp forest and thickets 1500-3500 ft. generally grows on rocks. Specimens is from Campo Alegre, 1500 ft. Aug. N. B. I have seen this or a similar species growing on palm-trees at Jordan, 800 ft. About 10 jugal. 1 specimen.

1035

Fern Sierra del Libano, about 6000 ft. damp forest. Grows on trees, hanging down from the branches and often hidden among mosses and Hymenophylla. Collected in March. 5 specimen scant.

1036 Damp forest, 1500-4000 ft.; rare. Grows on the ground. Specimen is from Jiracasaca, 2500 ft. Sept., on a tree. Specimens growing on the ground are generally rigid-erect, and the meshes are more numerous, but the ferns pass into each other. 39 specimens.

1037

Damp Forest, 2500-3000 ft., principally above 4000 ft. generally grow on the ground. Specimens are from the Sierra del Libano, 5500 ft., Mar. Commonly 1-2 ft. high, sometimes 3 ft. variable segments distant or approximate, alternate segments crenate or toothed. A constant character is the acute process at the base of the ultimate segments.

50 specimens

1038 23 specimens

1038 *Dryopteris cheucophylloides* (Mocitz) Kuntze. Damp Forest, 1000-5000 ft. generally on trees; not common. Specimen was collected near Onuca, 3000 ft., Feb.

Leaves sometimes 1 ft. long. 50 specimens.

1039. *Phytoloba crenatifolia* (L.) Presl.

Occasional on trees, forest, 2000-5000 ft. Specimen is from Las Partidas, 3500 ft. March. (Rhizome sent separately)

26 specimens.

1040 Damp Forest 000-7500 ft. Generally climbing on trees by a rooting stock, which may be several ft. long; but on the Sierra del Libano (5500 ft) I found it on the ground. The narrow specimen was collected near Las Partidas, March; the broader one above Onuca Aug. in both cases on trees at altitudes of 3500 ft.

24 specimens. Fertile.

1041 Add to set.

1041

Mountain Forest, 000-5000 ft.; commonly grows on the ground, sometimes on trees. Specimen was collected near Las Partidas Nubes, 4000 ft., Feb. (Rhizome sent separately)

50 specimens.

1042 *Phycopteris pilulata* (Swz.) Schott. 4500 ft. Aug.

Damp Forest, 500-6000 ft.; principally on rotting logs, sometimes on living trees. The species is moderately common, but I have seen fertile leaves only in one place, Sierra de Onuca, in a ravine at 5400 ft., growing on a log. Collected Aug. 25.

50 specimens.

1043 *Coniopteris crenata* Swz.

Damp Forest 1000- 000 ft.; rather rare. Specimen is from Orcaualito, 1500 ft., May.

50 specimens.

1044 No specimens; no labels.

1045

Local, 4000-6--- ft., generally in open places near streams, gullies etc. Specimen is from the Sierra del Libano, 6000 ft., Feb.

50 specimens.

1046 Specimen from a damp glen in the forest at Alto de Cielo, 5000 ft. Dec. 20. I found this species abundantly in glens, from 4500 to 6000 ft.

1046

Damp Forest, 1000-5000 ft, principally in glens, near streams. Very variable, but I believe that the form changes, to some extent, with growth. Generally there are 3-5 pairs of segments below the pinnatifid apex, sometimes as many as 8, rarely two and the latter, apparently are young plants, where the segments are numerous they

they are, generally narrow. Specimen was collected near Escalera de los Indios, 1500 ft., Feb.

50 specimens.

1047 (var. of 1023?) Dryopteris villosa (Presl.) Schottl.

Rare in shady glens, 3000-3500 ft. Specimen was collected near Valparaiso, 4000 ft. March.

The leaf 5 ft. long. Specimens from several localities agree in the paleaceous rhachis, and the veins are never hairy.

(Petiole separate) 37 specimens.

1048 Phlebium decumanum Willd.

1048 Phlebium decumanum Willd.

Luridica, forest by the seashore, on palm-trees, Sept. Only two specimens obtained. 3 specimens.

1049 Plectanum trifoliatum Cav. Campyloneuron repens (Swz.) Presl. Which? Forest, in glens, 500-2500 ft.; local and rather rare. All my specimens have 3 segments, and they are quite constant in form. Specimen is from Cacagualito, 1500 ft., May. 2 specimens.

1049 Sierra del Libano, damp forest on a ridge, about 6000 ft.; rare, on trees. Collected in March. No specimens except for N.Y. and Underwood. (single leaves)

1050 Polybotris caudata Kunze.

Common in damp mountain forest, 1500-5000 ft., grows at first on the ground, but at length its creeping stick extends over tree trunks and rocks, sometimes to 50 ft. Only the large plants have fertile leaves. Specimen was collected near Las Partidas, 3500 ft. March. 17 specimens.

1051 Creeping on tree trunks, to 15 ft., or more, Rare in damp forest, 1200-4000 ft. Specimen was collected near Jordan, 1200 ft. May. 8 specimens.

4 St. River-bank, dwarf forest, back of Agua Dulce, 2600 ft. Aug. 7. (sterile.)

1052 Erect, 2½-3 ft. forming small clumps. Rather rare on rocks, bank of streams in damp mountain forest, 2000-4500 ft. Specimen is from Jiracasaca, 2500 ft. Sept. 19 specimens and 4 fertile leaves.

1053 Meniscium angustifolium Swz.

Banks of streams in open or shady places on rocks or the road, 1000-3500 ft. Common. Specimen is from Cacagualito, 1500 ft., May. 50 specimens.

1054, Gymnopteris aliena (Swz.) Presl.

Local in glens, damp forest, 1000-4000 ft., grows on rocks or on the ground. Often proliferous. Specimens are from Cacagualito, 1500 ft., May. Well-grown sterile leaves are often 3 ft. long. Near Onaca, in a glen, 3000-4000 ft. I found this species very abundant; elsewhere it is moderately common. 50 specimens.

1055. Meniscium serratum Cav. Local in boggy, open places, near water, below 1500 ft. Specimens were collected near Londa, 2500 ft., Sept. Leaf about 4 ft. long, stem 1½ ft. The segments are 25-30 jugal. About 50

~~1055~~ 1055 4-5 ft. in large clumps. Boggy hollow in forest, Don Diego, ~~May~~
Don Diego, May 22

1056

Twining, to 15 or 20 ft. Common in thickets and along the border of forest below 3000 ft. Specimens were collected near Masinga, 4000 ft., Dec. 36 specimens.

1057 Damp forest, 5000-6500 ft. Vittaria graminifolia Kunz.

On trees, often covering the lower branches; it ranges as low as 2500 ft., but the plants are small and rare. Specimen is from the ~~Sierra del~~ ^{Sierra} del Libano, 6000 ft., March. The leaves are sometimes 2 ft. ~~1/2~~ long. 15 specimens.

1058 Histiopteris incisa Thunb. Ag. I do not see any label.

1059

Rare on trees, forest, 2000-5000 ft. Specimen was collected above Jiracasaca, 3000 ft., Aug. 25. 1 specimen.

1060 ^{skt} Ceropteris tartarea (Swz.) Link. (not marked as sent out.)

Common on banks, principally 1000 ft. - 4000 ft.; below 1000 ft. it grows only in shady and damp places. The leaf is generally very pale yellowish, sometimes white beneath; rachis and petiole always dark; primary segments broad at base.

Owing to the great amount of variation in this and allied species, they are very puzzling. I have separated some forms which appear to be distinct; but the group should be carefully studied in the field, and for this I have not yet found time.

Specimen is from Minca, 2500 ft., Aug. 50 specimens.

1061 Ceropteris tartarea Rare on open banks and argillaceous steep cliffs 3500-5000 ft.; I have specimens from 3 localities, all agreeing in the pale petiole, form of segments etc. Specimen is from Las Partidas, 3500 ft., March. 50 specimens.

1061 Specimen from Las Nubes, 4500 ft., Dec. 20. I found it covering a damp bank by a road in the forest, associated with a few roots of No. 1062 but always distinguished by the pale stem and segments broad at base.

1062 Ceropteris tartarea Open banks and argillaceous cliffs, 3500-5000 ft., I have found it only in two localities, associated in both cases with No. 1061, but readily distinguished by the form of the segments and the dark petiole. Specimen was collected on the Sierra de Onaca, on open clay cliffs, 5000 ft., Aug. 16. 27 specimens.

1062 Specimen from Las Nubes, 4500 ft., Dec. 20; Common in this locality on open banks. The leaves are sometimes 4 ft. long, with the lower segments primate.

1063. Cymopteris rufa (L.) Bernh.

Rare on damp, shady banks and rocks, dry forest region, 500-1500 ft. Specimens were collected near Masinga, 600 ft., Nov. Leaf sometimes 15 inches long. 50 specimens.

1064 Local and rather rare

on damp, shady banks and cliffs, dry forest region below 1000 ft. It withers during the dry season. Specimens were collected near Bonda, 150 ft., Oct. 50 specimens.

- 1065 Damp-forest,
 x 4500-6500 ft., on rocks and trees; rare. The surface of the sterile
 leaf is viscous to the touch. Specimen is from the Sierra de Onaca,
 6500 ft. Aug. 26 2 specimens.
- 1066
 Damp forest, 7000-6500 ft., principally on ridges, grows on the ground
 or on rocks or rotting logs, rarely on trees. Specimen is from the
 Sierra de Onaca, 6000 ft. Aug. 26. Easily distinguished- recognized in the
 field by its rigid leaves and the fertile blade nearly as large as
 the sterile one. 36 specimens.
- 1067
 Sierra del Libano 6000 ft. damp clearing on logs, March. No speci-
 mens except for N.Y. Carnegie and Underwood.
- 1068
 Local on banks and rocks, shady places, 1200-3000 ft. Specimen is from La
 Jiracasaca, 2500 ft. Sept. 43 specimens.
- 1069
 Local on damp, shady banks and rocks 1000 -3500 ft. It withers during the
 dry season. Specimen was collected near Minca, 2000 ft. Dec.
 50 specimens.
- 1070
 Damp places in thickets, generally near streams, 3500-5000 ft. local and
 rather rare. Well-grown plants have leaves 10 ft. long and nearly 4 ft
 wide at the base, the stem 6 ft. long and $\frac{3}{4}$ inch in diameter, smooth
 brown with rare prickles. The leaf is drooping or partly supported by a
 shrubbery. Specimen was collected near Valparaiso, 400 ft. Primary and
 secondary leaf 8 ft. long. (End of frond and lower secondary segment from
 a leaf 8 ft. long. 39 specimens.
- 1071 Gothofreda cordifolia Schlecht.
 Rare in damp forest, 4000-6000 ft. Specimen is from the Sierra del
 Libano, 5500 ft. March 2 spec'ns, poor.
- 1072
 Erect, stem $2\frac{1}{2}$ ft. long, leaf 3-3 $\frac{1}{2}$, lower segments conform or slightly sub
 shorter; local in damp, shady glens, 3500-5000 ft. Specimen is from Val-
 paraiso 4500 ft., Feb. Numerous specimens from this and other local-
 ities are very constant in form, size of segments etc. 50 specimens.
- 1073
 Damp, mountain forest, especially in ravines, 3500-5000 ft.; common lo-
 cally. Specimens were collected below Valparaiso, 4000 ft. March.
 Leaf $4\frac{1}{2}$ ft-6 ft. long. 50 specimens.
- 1074
 Climbing on trees by a creeping stock 10-25 ft. Common in damp glens in
 the mountain forest, 1500-5000 ft. The sterile leaves are very variable
 ; small ones may be entire, or have only one or two branches; larger ones
 may be 3 ft. long, with 20-25 pairs of segments, which may be broad or
 narrow and more or less decumbent, the different forms appearing on the
 same plant. The fertile leaves are comparatively constant except in the
 size of the segments. Specimen was collected below Valparaiso, 4000 ft. Feb.
 Feb. 1 specimen and a sterile leaf.
- 1075 Olfersia carvina (Swz.) Presl, Damp mountain forest, generally in
 glens near streams, 1000-5000 ft.; moderately common. Grows on trees or

1074 (continued) rock, the creeping root commonly 1-3 ft. long. Specimen
Specimen is from Cacaguaito, 1500 ft. May. 33 specimens. and
several fertile fronds.

1075, Open, damp places in gullies,
2000-3000 ft., rare and observed only near Onaca and Jirucasaca, Sept.
Specimen was collected near Onaca, 2500 ft. Aug. 22 50 specimens.

1077 Acrostichum aureum L.
Erect, stout, 5-7 ft., forming large clumps. Salt marshes near the sea;
rare at Cienega. It is abundant along the railroad line between Barrancu
quilla and Savanilla, but I have not collected there; my specimens from
Cienega are imperfect. No specimens except poor ones for N.Y. and
Underwood. The latter with fertile leaflets only.

1078
Erect or diffuse, 4-6 ft. high, often forming tangled thickets. This
is the common form on dry hillsides and in clearings at Valparaiso,
3500-4500 ft. Collected in March, at about 3500 ft.
N.B. I have neglected the species of this group, when collecting
them, I supposed that all belonged to one common species; I cannot,
therefore, give any exact information as to range, etc. 50 specimens.

1079 Pteris podophylla Swz.
Damp forest and thickets near streams, 3000-5000 ft.; local, Specimen is
from Las Nubes, 4500 ft., Dec.
Stem 3 ft. long, with 3 approximate branches rachis 2 1/2-3 ft. long;
the two lateral ones have each a branch below near the base, and this
branch may have another branch below, thus

Specimen is a lower (secondary) branch. Same as 1080. 50 spec'ns.

1080 Pteris podophylla Swz.
Occasional in damp forest and thickets, 3500-5000 ft. Specimen is from
the Victoria Estate, 4000 ft. Specimen is from March. I have collected
the fern in several localities, and it is very constant. Much larger
and stouter than 1079 (leaf 3 ft., stem 3 ft., branching in the same way
but the lateral branches divide below 3 times, instead of twice.
14 specimens.

1080 Specimen from Las Nubes, 4500 ft., Dec. 21; common in this vicinity
and at Alto de Cielo, 5000 ft. growing in deep ravines in the forest.
I have seen leaves 5-6 ft. long and broad, with stems 7 ft. long. No.
1079 is a dwarfed form, found in ravines in forest clearings; in such
situations the leaves springing from old roots are precociously fert-
ile.

1081
Common in damp forest, 300-4000 ft. Specimen was collected near Escalera de
de Los Indios, 1500 ft., Jan. 3-4 ft. high. Stem slender, dividing into
3 branches, and the lower segment of each branch may divide again.
50 specimens.

1082 Pteris quadriaurita Detz.
Local in damp forest, 300-4000 ft. Specimen was collected near Cacaguai-
to, 1500 ft., May. 18 specimens.

1033 Fern

Local and rare in damp forest, mountain sides, 4000-5500 ft. Specimens were collected near Las Nubes, 4500 ft. Feb. 21 specimen.
Specimen from the Horqueta, sent to N.Y.

1034 Lomaria anocleoides Spreng.

Common locally in mountain forest, 4500-6000 ft.; grows on the ground. Specimen was collected above Las Nubes, 5000 ft. Feb. 18 specimens.

1035 Fern

Local on damp banks in the dry forest. Specimens are from Masinga Vieja, 1000 ft. Aug. Curls up in dry weather. 50 specimens.

1036 Dryopteris pagata (L.) J.Sm.

Common locally on shady banks in the dry forest, below 1500 ft. It curls up in dry weather and withers entirely during the long, dry season. Dec May. Specimens are from Bonda, 150 ft. Sept. 50 specimens.

1037 Fern

Rare in shady, damp forest banks in the dry forest region near Bonda, 150 ft.; not observed elsewhere. Like other ferns of this region it appears with the first rains, in May or June, and matures about Nov 50 specimens.

1037 Specimen from Bonda, Oct. 30. By careful searching I have found this fern in many localities within a radius of 5 or 6 miles of Bonda and below 600 ft. it always grows in thickets or along the edge of dry forest, generally on banks, and is nowhere common. The ferns are mature about the end of Oct. and towards the end of November the leaf dries up.

1038 Fern

Erect, about 4 ft. high. This appears to be the common fern in dry situations, thickets, borders of forest and clearings, 2000-3000 ft. Specimen was collected near Onaca, 2500 ft. Aug. 22. The leaves are sericeous or glabrate beneath. 12 specimens. Not well fruited.

1039. Lindsaea stricta Dry.

Forest on a ridge near Las Partidas, March 4. 3500 ft. I have only two specimens.

Blechnum

1090 Blechnum occidentale L.

Specimen from a cliff on the Horqueta Mountain, about 6500 ft. Dec. 21 The fern is common to the top of the Horqueta, nearly 8000 ft. and I cannot see that mountain plants differ essentially from those below

1090 Common in forests and thickets, 500-4000 ft. It occurs in the dry forest region, but only near streams. The Specimen is from Don Amo, 2000 ft. June. 50 specimens.

1091

Erect, 6-8 ft. thickets and open forest, top of Sierra de Onaca, 6500 ft. Aug. 26. No spec'ns except for Underwood, Carnegie and N.Y.

1092 Blechnum occidentale var.

Common locally in damp thickets or shady places in clearings, 1500-3000 ft. Specimens are from Jiracasaca, 2500 ft. Sept. 50 specimens.

1093 Blechnum longifolium H.B.K. -1094

Specimen from a glen in the forest, Don Amo Estate, 3000 ft. on damp rocks near a waterfall, Jan. 18.

1093 Local on shady cliffs and rocks near streams, 500-2000 ft. Specimens were collected near Jordan, 800 ft., May. 17 specimens.
-1093

1094 Blechnum longifolium Common locally in damp thickets or shady and sheltered parts of clearings, 2000-3500 ft. Specimens are from Jiracasaca, 2500 ft., Sept. 50 specimens.

1095 Trichomanes rigidum Swz.

Mountain forest, 4000-6000 ft.; common on banks. Specimen is from Las Partidas Nubes, 4500 ft. Dec. 14 specimens.

1096 Trichomanes sinuosum Fich.

Damp forest, 3000-6000 ft.; common on tree-trunks, especially on tree-ferns. Specimen was collected near Valparaiso, 4000 ft. March. 10 specimens.

1097 Trichomanes crispum L.

Damp forest, in glens, 5500-5000 ft., rare on banks. Specimen was collected near Las Partidas 3500 ft., March 5 specimens.

1098 ~~Trichomanes~~ Specimen from forest near the top of the Morqueta mountain, 7000 ft. Dec. 28.

1098 Fern Damp mountain forest, 4000-6000 ft.; rare on trees. Specimen is from Las Nubes, 4500 ft. Dec. No specimens except for N.Y., Underwood and Carnegie.*

1099 Fern.

Damp forest in glens, 5500-6000 ft. Common on trees, especially tree-ferns and sometimes on rocks. Specimens were collected near Las Partidas, 3500 ft. March. 34 specimens.

1100 Fern

Damp forest mountain, Sierra del Libano, 5500 ft. March. Rare on tree-trunks. No specimens except for N.Y., Underwood and Carnegie.

1101 Damp forest, especially glens near streams, 4000-6500 ft.; common
1101 on trees and rocks. The leaves are sometimes over 2 ft. long. Specimen is from the Sierra del Libano, 5500 ft. March

31 specimens.

1102 Trichomanes reptans Swz. Occasional on trees or rocks in damp forest 1500-4000 ft. Specimens were collected above Onaca, 3500 ft. Aug. 15 5 specimens.

1103 Trichomanes Kraussii Hook. et Arn.

--125--

1103, -Damp-Forest Trichomanes Kraussii Hook. et Arn.

Damp Forest, 1000-5000 ft., generally on rocks, sometimes on tree. Common. Specimens are from Las Partidas, 3500 ft. March (the leaves are unusually large) 36 specimens.

1104 Trichomanes trichoideum Sw.

Damp Forest, 3500-6000 ft. Common locally on trees, especially on the stems of tree-ferns, often covering them. Specimens were collected below Valparaiso, 4000 ft., March. 57 specimens.

1105 Hymenophyllum polyanthus Sw.

Damp Forest, 4500-6500 ft., on trees. Observed only on or near the Sierra de Libano de Onca, where it is common. Specimens were collected Aug. 26, at 6000 ft. 35 specimens.

1106 Fern A small variety, Minca Estate, damp forest, about 2400 ft.

Nov. 13; on a dead tree. This is the lowest locality in which I have observed the species and no doubt it is dwarfed.

1106 Moderately common on logs and trees, damp mountain forest, 3000-6000 ft. Specimens are from Las Nubes, 4500 ft. Feb. The species is variable in form, but is generally broader than the allied forms; the indusium is always at the end of a longish lobe. The leaf is paper green then most of the Hymenophylla; in dry weather it curls up longitudinally as well as laterally. 35 specimens.

1107 Fern Rare on sheltered banks.

Open lands or thickets, 1500-3000 ft. Specimen is from Campo Alegre, 1500 ft. Nov. 19 specimens.

1108 Ancinea phyllitidis (L.) Swz. Fern

Local in forest, on damp banks or rocks, 500-1000 ft. Aug. 50 specimens

1109 Fern

Local on banks, open mountain sides, 300-3000 ft. Specimens are from Jiracasaca, 2500 ft. Sept. 40 specimens.

1100 Fern Jiracasaca, 2500 ft. Open land on mountain side Sept. I have only two specimens, without root-leaves. No specimens except 1 for N.Y. Var. of 1109?

1111 Oenothera oblongifolia Swz.

Open mountain sides, 2000-4000 ft. Common locally. The fertile leaves of this and allied species only appear during the rains. Specimen is from Jiracasaca, 2500 ft., Sept. 50 specimens.

1112 Victoria stipitata Kunze Fern

Moderately common on trees, forest, 5000-7000 ft. Specimens are from the Sierra de Onca, 6000 ft. Aug. 20 37 specimens

1113 (var. of 1115 ?)

Local on banks, generally in sheltered or shady places, 1000-3000 ft. Probably one of the numerous forms of No. 1115 but my specimens, from several localities, are quite constant. They are often considerably larger than the largest of 1115. Specimens are from the Agua Dulce Road, 1200 ft. Dec. 50 specimens, mostly small.

1114 (var. of 1115-?) Jirucacaca, open lands, 7000 ft., Sept. I have about a dozen specimens, which are quite constant in form, hairiness etc, 50 specimens.

1114 Specimen from a hill 4 miles inland from Playa Brava, about 500 ft. on a camp bank in dry forest Oct. 23. I have found this fern in several places from 2500 to 150 ft., always on sheltered banks. In all my numerous specimens the leaf has only one fertile segment. The fern also differs from No. 1115 in habit, the leaves spreading from the root so that they often lie on the ground; in No. 1115 the fertile leaves at least are generally erect.

1115 Fern.

Common on banks, open lands or thickets, below 2500 ft. Very variable; the smaller and more finely cut leaves are found at lower levels, or in dryer situations. Specimens were collected near Muringa, 400 ft., Sept. 50 specimens.

1116 Fern

Common locally, forming dense thickets in dry forest and open places, 2500-5000 ft. Specimen is from Las Nubes, 4500 ft., Dec. 5 ft. high, frequently repeatedly ~~repeatedly~~ dichotomous 50 specimens.

1116 Specimen from a ridge in the forest, Don Amo Estate, 4000 ft., Jan. 20. The species was associated with No. 2538 in a tangled thicket, but the two were readily distinguishable by their leaves and their habit. No. 2538 being subsucculent, while this species is erect, with spreading branches which are 3-4 ft long and repeatedly dichotomous.

1117 Damp forest near a stream,

Las Nubes, 4500 ft., Dec. I have only portions of one leaf, which appear to be distinct by its puberulous rachis etc. The leaf was nearly 6 ft. long. But on its size it appears to be closely allied to No. 1071. 1 spec

1117 Portions of leaf from camp forest on the Morqueta Mountain, 7000 ft., Dec. 23.

1118 Fern

Erect stem 5 ft. long and 1 inch thick at base, where it is thinly covered with small glabrous scales; leaf 5-6 ft. Rare in shady mountain lens by streams 3500-5000 ft. Specimen was collected above Onaca 3500 ft., Aug. 20 50 specimens.

1119 Anthrophyllum lineatum Kaulf. Fern

Occasional on trees, damp forest, 1500-6000 ft. Specimen is from Las Nubes, 4500 ft., Dec. In dry weather the edges curl up to the midrib. 50 specimens.

Erect

1120 Erect 3 ft.; the clumps commonly from a low trunk, which may be 1 ft. high and 3 inches in diameter. Rare in damp mountain forest, 4000-6000 ft. Specimen is from the Sierra del Libano, 6000 ft., March.

No specimens except for N.Y. and Underwood and Carnegie.

1121 Fern

Sierra del Libano, camp forest on a ridge, 5500 ft., Feb. 27. Two leaves only seen and I have a single leaf from the Sierra de Onaca, 6000 ft., Aug. 26.

No specimens except single leaves for N.Y. and Underwood.

1122 Fern.

A tree-fern, 20 ft. or more high, stem 6 inches in diameter, base of petiole densely palaceous. Open place in damp glen above Las Nubes, 5000 ft., Feb. 6. Not observed elsewhere. 55 specimens.

1122 Specimen from Alto de Cielo, 5000 ft. Dec. 12 This fern occurs rather rarely in deep, damp glens in the region above Las Nubes and Alto de Cielo, 4700-5500 ft. It is one of the finest of the tree ferns of this region, commonly 30 ft. or more high. Leaves 8-10 ft. long, 15-20 jugal segments somewhat decrescent towards the base; segments two feet or more, secondary about 30 jugal. Rachis smooth, green above, purplish beneath. The scales of the petiole fall off when pressed.

1122 Segment from young plant. The rachis is very scaly and the whole leaf has a hairy appearance, quite different from the mature form.

1123 A tree fern, 15-18 ft. high. Damp forest below Las Partidas, 5000 ft., March (Petiole and portion of trunk sent separately.) Associated with No. 2223, and the leaf is somewhat similar, but the petiole is very difficult 22 specimens.

1124 Hemitelia speciosa (N.S.K.) Local on damp banks, sides of ravines in mountain forest, 3500-5000 ft. Specimens collected near Las Partidas, 3500 ft., March. Leaf about 4 1/2 - 5 ft. high. Lower segments slightly decrescent. 50 specimens.

1125 Asplenium bissectum Swz. Damp glen, forest, Las Nubes, 4500 ft. Feb. 6; on rocks; I could find no fertile leaves. No specimen except sterile one for N.Y. 3 specimens.

1126 Asplenium obtusifolium L. Local in ravines, 3000-5500 ft. It grows only on wet rocks, especially in the spray of cascades and even exposed to the falling water and completely submerged; during freshets the leaves must be exposed to strong currents. Specimens were collected above Onaca, 3500 ft. Aug. 15. 50 specimens.

1126 Add to set.

1127 Asplenium rhizophorum L. Var. Damp forest, Sierra del Libano, 5500 ft., March. My specimens are constant in the rounded ultimate segments. I judge that this is only a variety of No. 975. 2 specimens.

1128 Asplenium sanguinolentum Kze. Mountain forest, 3500-6000 ft.; rare on trees or logs. Specimens are from the Sierra del Libano, 5500 ft., Feb. 27 41 specimens, some poor. No roots except one for Prof. Underwood.

1128 Specimen collected near the River Guira, 3500 ft., March 22

1129 Moderately common in damp mountain forest, 5000-6000 ft. Specimens are from the Sierra del Libano, 5500 ft., Feb. Occurs on the Morqueta, at nearly 7000 ft. 8 specimens.

1130 No specimens; no label

1131 No specimens; no label.

1130 No specimens; no label

1131 No specimens; no label

1132 Crescentia Cujele L.

Calabash tree. Cultivated but grows wild and is self-planting in many places, generally open and low, boggy ground. Commonly the trees are 20 to 35 ft. high. They attain a great age; hence some trees which appear to be wild may really have been planted; but this is certainly not the case with many young plants which I have seen. I have not observed wild ones above 500 ft.

It would be impossible to say whether the tree-species is indigenous or introduced, as it was cultivated by the Indians long before the Conquest. I am informed that there is another wild species or variety with fruit about the size of an orange. Specimens were collected at Neg Nejuanga, near the northern coast, March 23. Full set.

1133 Meloea populifolia Bureau

A vine, to 40 ft. or more. Low boggy lands near Mamatoca, 100 ft.; not observed elsewhere but pretty common in this region. Flowers Jan.-May, bright yellow. Specimens were collected Feb. 25. Full set.

1134 Eignonia unguis-cati L.

Dry mountain-side forest, occasional below 1500 ft. in the region South of Mamatoca. A high vine, very free-flowering. Flower deep-yellow; only young leaves at this season, April (Specimen collected Apr. 10)
Full set of flowers but lacks leaves.

1135 Hippocratea nervosa (Miers) Rusby

A vine, to 10 ft., clearing, damp ravine near a stream, Sept. 30.
Petals yellow. No specimen except a poor one for N.Y.

1136 Annemopaema rotundum Sprague sp. nov.

Valparaiso Mountain forest, 4500 ft. April 14. A high vine, flower pale greenish yellow, limb white. 9 specimens.

1137 Miconia ^a spectabilis Ness ab. L.

Twining, to 35 ft. or more, Valparaiso, 4500 ft. forest near a stream. No flowers Jan.-May. Corolla white, throat mottled with dark and light purple. Collected May 27. 16 specimens.

1137 2 additional specimens. (There were 16)

1138 Annemopaema adenocalyx Sprague sp. nov.

Twining 15-30 ft. Local in dry forest and thickets near sea-level, (not observed elsewhere above 500 ft.) Flowers Jan.-June white, sometimes with a creamy tinge, tube more or less yellow. Specimens are from Cuairaca near the coast, 10 miles east of Santa Marta, Apr. 4. Full set.

1138 Leaves from vine with fruit. Damp forest near Lonua, 250 ft. Nov. 29 (fruit sent separately)

1139 Allamanda cathartica L.? A shrub with long, vine like branches ~~60-70~~ trailing over trees and bushes 20 ft. thickets by seashore, sandy ground, Buritaca 50 miles east of Santa Marta, Sept. 22. Flower bright yellow. Three or four plants seen. Full set.



Eugene A. Smith, State Geologist.
Robert S. Hodges, Chemist.
Roland W. Harper, Geographer.
Mrs. Herbert H. Smith, Acting Curator
George N. Brewer, Field Geologist

University, Ala.,

1140 Tecoma chrysantha DC.

--130--

A large tree, mountain forest, 1500-4000 ft.; local and not common. Flowers
are Jan-Feb. Bright yellow. Specimens are from the Agua Dulce Road,
about 2000 ft. Jan. 18. The flowering tree is leafless. This was col-
lected at 400 ft. Minca Road. Full set of flowers; no leaves.

1141-Saldanhaea-Seemanniana

1141 Saldanhaea seemanniana Kuntze

A vine, to 40 ft, or more. Forest near a stream, Bonda, 150 ft; the vine oc-
curs for half a mile along the stream, but I have not observed it elsewhere
then elsewhere. Flowers light rosy, throat white. The fruit is 5 or 6
inches long, nearly 1 inch broad and $\frac{1}{2}$ inch thick; smooth (fruit will be
sent later) Flowers March-May. Collected Apr. 4 Full set.

1141 15 additional specimens to complete set of 26. Also specimens to work
in with those already numbered.

1141 Goes with fruit, 3 miles N. of Bonda, Nov. 29 A high vine.

1141 Fl. light rosy, tube pale Vine (high?) found a few ft. high in second
growth BonDiego, May 22.

1142 Tecoma pentaphylla Juss. Tecoma pentaphylla

Tree, 50 ft. Only one observed, mountain side forest below Las Nubes, about
4000 ft. Feb. 6. Flowers very freely. Leaves deciduous; only young leaves
were found. Flowers light rosy, throat paler.
(Full set, but get old leaves.)

Miers)

1143 Cydista equinoctialis Miers. (Sent out corrected to C. sermentosa)

A vine, to 40 ft. or more. Low forest by the seashore near the mouth of
the Luritaca River, Sept. 25; several plants were seen. Corolla light rosy
throat inside and outside, pale yellow streaked with dark crimson.

I hesitate to separate this from No. 738, but the flower is some-
what differently colored. It is worth noting that the leaves, in all my sp
specimens dried dark brown; those of No. 738 dried green. Full set.
1 fruit sent to N.Y. It is about 6 inches long, straight, narrow and
thickish.

1144 not named

Small tree, 8-12 ft. Common in clearing near stream at Las Nubes, 4500
ft. Collected Dec. 8. Petals white. The stem is pretty thickly covered
thorns, sometimes nearly 1 inch long. Full set.) Also
common in clearing at 6000 ft. Sierra del Libano

1145 Saracha Antillana Kr. et Urb.

herbaceous, 2-3 ft. Local and rather rare in damp clearings, 4000-6000
ft. Observed at Las Nubes, (4500 ft.) Valparaiso (4500 ft.) and Sierra del
Libano (6000 ft.) Flowers observed Dec. -Apr. (Specimens are from Las
Peñales Nubes, Jan. Petals white. Full set but some are poor.)

1146 Solanum brevipedunculatum Dun.

Suffruticose or shrubby, 4-6 ft. Thickets near seashore on damp, sandy
soil, Buritaca, 50 miles East of Santa Marta, Sept. 22. Petals white; berry
red. Not common. Full set but somewhat scant.

1147 Solanum flavescens DCNE.

A shrub, 8-10 ft. Rather rare in dry, open places or in dry forest, below 2500 ft. Flowers May-Dec. Petals white. The species varies greatly in the spines on the stem, petioles and leaf-veins; in general the spines are less abundant or wanting on plants growing in shady places. The fine hairs of the stem and fruit caused considerable irritation to the skin, coming off when touched. Specimen is from Bonda, 150 ft. Nov. Full set.

1148 Solanum heterophyllum Lam.

Shrub, 4-7 ft. Local on wet, alluvial land, near Bonda, 150-2000 ft. Not observed elsewhere. Flowers in Sept. and Oct. Corolla purple (Collected Sept. 25. (Full set)

1149 Solanum melonense L. A shrub, 3 ft.

Shrub, 3 ft. Rare on open, irrigated lands near the sea. Flowers Sept.-Jan. light purple. The fruit is globose, as large as a small orange. Specimen was collected near Santa Marta, Dec. 3 12 specimens.

1150 not named

Shrub, 3-8 ft. occasional in swampy, open lands near mouth of the River Buritaca, 50 miles east of Santa Marta. Collected Sept. 25, Only two or three were seen in bloom. (20 specimens.)

1151 Solanum ^{granulose} leprosum Dunal
~~Tree, to 20 or 25 ft. Common in clearings and on waste lands, 2500 ft. to sea level. Flowers Apr.-Dec., but most freely about July. Flowers white. (Specimens are from Bonda, 150 ft. July 15) Full set, some not good.~~

1151

1152 Solanum amictum Moric.

Shrubby, 5-8 ft. Common in open, damp situations, clearings etc. 500-3000 ft. to sea-level, but principally above 2000 ft. Flowers Sept.-Jan. Petals white. (Specimens sent from Onaca, Las Nubes and Bonda)

1153 Solanum chenopodioides Lam. (?)

Erect, branching, to 2 1/2 ft. Rare in shady and somewhat damp places below 1000 ft. Specimen collected near Bonda, Nov. 12. Corolla pale greenish, Full set.

1154 Solanum heterophyllum Lam. (in part) ~~(pp.)~~
" trachyphyllum H.B.K. (latter used)

not marked as sent out. Tree, to 15 ft., forest, Onaca, 2500 ft. Feb. 6 (3 specimens)

1155 Solanum asperitum Moritz.

Trailing over bushes etc. 10 ft. or more. Occasional in damp clearings, 4000-6000 ft. Specimen is from Las Nubes, 4500 ft. Dec. 20 specimens.

1156 Solanum scabrum Vahl.

Trailing over

1156 Solanum scabrum Vahl.

Trailing over bushes etc. 10 ft. or more. Occasional in damp

1156 Solanum scabrum Vahl

Local in open, damp places, clearings. 5000 ft. to sea-level. Trailing over or semiscandent, 5-10 ft. Flowers July-Dec. or later. Berry globose, red. Full set

1157 Datura sanguinea R. et P.

Shrubby or suffruticose, upright, 5-12 ft. Common in damp clearing at Las Nubes, 4500 ft. Collected Dec. 15, but it is said to blossom more or less through the year. Berry egg-shaped, 3 inches in diameter. Observed also at Valparaiso, 4500 ft. Full set.

1158 Datura fastuosa L.

Cultivated, herbaceous, 3 ft. and grows wild sparingly about village streets in the Santa Marta region. It appears to be an introduced species. Specimen collected at Bonda, 150 ft. Aug. 25 The fruited specimen Nov. 15 Full set

1159 Cranioalaria annua L.

Herb, upright or decumbent, 2-2 1/2 ft. Local and rare on open lands and in clearings below 500 ft. (Santa Marta district) Flowers observed in Aug. and Sept., white. The whole plant is covered with a viscid substance which is soluble in water.

Specimens from open land 5 miles east of Bonda, 300 ft. Full set.

1159 Pampa near La Tigraira, July 26

1160 not named.

Suffruticose, 4 ft. Rare in open places in the forest, dry soil, Sierra del Libano, about 5000 ft. Flowers in Feb., light reddish.

Full set, but scant

1161 herbaceous. Phytolacea icogandra L.

Herbaceous, more or less diffuse, 4-5 ft. Las Nubes, 4500 ft. damp clearing, Dec. 5. Berry blue Common at this place. Observed also near Valparaiso, 4000-5000 ft. where it is rare in open places in the forest, Feb-Apr. (Full set but rather scant and not very good.)

1162 Solanum torquatum R. et P.

A vine, to 20 ft. loosely twining or diffuse in shrubbery. Occasional in damp forest, 4500-6000 ft. Flowers Dec.-Jan. Corolla white. Specimens are from the Sierra del Libano, 6000 ft. Jan. 23 Full set, fine.

1163 Evina laevis L.

Suffruticose, to 2 1/2 or 3 ft. but often blossoms when 6 inches high. Common in dry forest and shady places, edges of clearings etc. below 2500 ft. Flowers more or less through the year, Corolla white; berry red Specimen collected near Mamatoca, 100 ft. Nov. 10 Full set, good.

1164 Capricum baccatum L.

Herbaceous, erect, branching to 3 ft. Rare in shady places below 800 ft. (not observed above that altitude) The specimen is from Masinga, 250 ft, Aug. 2. I have flowering specimens from Calavara, 600 ft. Jan. 2 21 specimens.

E

1165 Solanum nigrum L.

herbaceous, 1-3 ft. Common in clearings, in waste lands etc. below 2500 ft. Generally on damp ground. Blossoms July-Dec. Corolla white. Berry purple-black. The specimen was collected near Bonda, 200 ft. Nov. 8 Full set.

1166 Saracha Jaltomata Schl.

Herbaceous, 2-2½ ft. Rare in damp, open places below 3000 ft. Specimens are from Jiracacara, 2500 ft. Sept. 25 in a clearing. Full set. Specimens from Bonda sent to N.Y.

1167 Solanum nigrum L.

Herb, 3-4 ft. Common in open places near streams, 4000-6000 ft. May. (// No specimens except for New York and Carnegie)

1168 Solanum nigrum L. Rusby is uncertain.

Herbaceous 3-4 ft. Local in damp clearings below 1000 ft. Corolla white; ripe berry green. Though closely allied to No. 1165 this form can always be distinguished by its hairy branches and green berry. Specimens are from Calavara, 600 ft. Dec. 15. Full set, good.

1169 Capricum baccatum L.

Shrubby, 3-5 ft. Occasional in waste places, clearings etc. below 2500 ft. Flowers May-Oct. Specimens are from Bonda, 150 ft. Aug. 25
C specimens, not very good.

1170 not named

Shrub, 4-5 ft. Rare in open places on ridges in the forest, 5000-6000 ft. Specimen is from the Sierra del Libano about 5000 ft. March 2 Flowers observed at the end of May on the same plant. Full set, passably good

1171 not named.

Herbaceous, erect or spreading. 1-2 ft. Local and rather rare in damp clearings and waste lands below 2000 ft. Flowers July-Nov. Corolla pale yellow, throat spotted (as in other species) with dark purple. Specimen collected near Bonda, 150 ft. Nov. 9 17 specimens.

1172 Physalis hirsuta Dun. (These specimens, originally placed numbered so, were put in 1485

Cancel the original No. 1172 (7 specimens) They belong to 1485.
18 labels.

1173 Physalis Hermannii Dun.

Spreading, the ends of the branches ascending, 2-3 ft. joints purple (a character not found in other species collected by me.) Flower smaller than in allied species, pale yellow, throat spotted with purple or crimson. Rare in damp, open places below 2000 ft. Specimens collected on alluvial land, clearing near Masinga, 250 ft. Nov. 7. Full set, good.

1174 Physalis obscura Mx.

Erect to 2 ft. Flower light yellow, spotted with crimson on the throat. Local in damp, open places below 2500 ft. Specimens were collected on alluvial land near Masinga, 250 ft. Nov. 8 I have small flowering specimens from Minca, 2000 ft. Aug. 22 specimens.

1175 not named Trailing, 4-5 ft. Local in damp, open places, clearings etc. 4000-6000 ft. Specimens are from a clearing on the Sierra del Libano, 6000 ft. Jan. 23 and March 18. 4 specimens

1176 Brachistus pringlei Watson

Shrub or small tree, 15 ft. Dry forest near Mamatoca, 100 ft. Aug. 23
12 specimens.

1177 not named.

A diffuse, vine-like shrub, trailing over trees etc. to 125 ft. Locally common in low, sandy situations, especially near the coast. Flowers white; expands late in the afternoon. Flowers Aug. -Sept. (and later?)

Full set but scant, not very good, and flowers not expanded.

Specimen from Cienaga, Sept. 9

1178 Solanum Seafortianum Andr.

A vine, to 15 or 20 ft. Occasional in dry forest below 1500 ft. Flowers Aug. -Nov. Corolla light purple; anthers yellow. Specimen was collected near Mamatoca, 100 ft. Nov. 10. Full set

1178 Specimen from Londa, 150 ft. Sept. 15. The corolla, in this plant was white or nearly so. The usual color is light purple or lilac.

1179 not named.

A vine or diffuse, vine-like shrub, 5-8 ft. Rare in damp clearings, 4000-6000 ft. Flowers observed Dec. -Jan. white. Specimen is from the Sierra del Libano, 6000 ft. Jan. 26 16 specimens.

1180 not named

Erect, branching only above, but lower part of the stem with ^{di}divided-leaves. Rare in damp clearings, 4000-6000 ft. Flowers Jan. -Apr, pale/greenish. Specimens are from Valparaiso, 4500 ft. Jan. 26.

Full set, fine, but only a few have divided, lower leaves.

1181 not named

A shrub, to 6 ft. Damp clearings, Sierra del Libano, 6000 ft. Jan. 20. Moderately common in this situation, but not observed elsewhere. Corolla white. Full set, good.

1182 not named.

Suffruticose, erect, 3-4 ft. Damp clearings, Sierra del Libano, 6000 ft. Jan. 23 (flowers until May or later) Corolla white, sometimes tinged with purple. Full set, XX

1183 Solanum mendex Van. Murrck ;(in another list.)

A shrub, to 5 ft. Rare in arid situations, scrubby growth, not far from sea-level. Specimen is from a hill 3 miles inland from Playa Brava, 500 ft. June 6 Corolla white, shaded with dull crimson. 19 specimens, scant.

1184 (not named)

Suffruticose, 2-4 ft, moderately common in an abandoned clearing, Sierra del Libano, 6000 ft. Collected March 8. Flowers creamy white. 11 specimens Flowers were also collected in Jan. in the same locality.

1185 (not named) Shrub, 5-6 ft., Las Nubes, 4500 ft. thickets and near streams, pretty common. Collected Dec. 17. Flowers pale greenish yellow, Observed also at Valparaiso, 4500 ft. March Full set.

1186 Solanum medium Kunth

Shrub, 4 ft. Rare in damp clearings, about 4500 ft. The specimen is from Valparaiso, Apr. 15. Also collected at Las Nubes, Dec. 16

6 spec's.

1187 Barsovia solanacea Benth. (?) -- 1188 Barsovia macrophylla H.B.K. (corrected label not sent.)

Suffruticose, 3-4 ft. with few branches. Local in open, damp places about 4500 ft. Specimens are from Valparaiso, in a clearing, Feb. 15.

Flower greenish yellow; berry red. 12 specimens.

Thurs Day said
with
dest.

1188 = 1187 Barsovia macrophylla H.B.K. (corrected label not sent.)

Suffruticose, 4-6 ft. Damp clearing near stream at Las Nubes, 4500 ft. Dec. 3. Full set, but about 3 specimens are poor.

1189 Barsovia solanacea L. et N.

A loosely twining vine 20 ft. Alluvial forest 2 miles from the coast near Mindehuaca, 40 miles east of Santa Marta, Oct. 5 Corolla white.

Full set.

1189 Specimen from Don Diego, damp clearing on a little ridge near sea-level, May 22. I found the species on alluvial land in the same vicinity. It appears to be moderately common in damp forest and thickets near the coast, growing to 25 ft.

1190 (not named)

Suffruticose, 3 ft. Rare in damp clearings, about 4500 ft. Blossoms Dec.-Feb. Specimens are from Valparaiso, Feb. 28 (There was also 1 specimen, from Las Nubes, Dec. 11) 7 specimens.

~~Barsovia~~

1191 Barsovia lucida Watsby now regards it as Barsovia n.s.

A small tree, 15 ft. Occasional on alluvial land near sea-level. The specimen with fruit is from Don Diego, 5 miles east of Santa Marta on the coast, Sept. 28; the other from near Cienaga, Sept. 13. Corolla white. A fine set.

1192-Chacalata Carthagenensis (Jacq.) Kuntze

A shrub with long branches which droop over in an arch-like form; in thick shrubbery these branches appear vine-like, common locally in low dry forest, extending a few miles back from the coast. Flowers in Sept. (Specimens are from the base of woods & flow at base of mountains 3 miles East of Cienaga, Sept. 12

1193 (not named)

A shrub, 5-6 ft. Edge of forest by a clearing, Valparaiso, 4500 ft. March 4, Full set, all good but 3 or 4

1194 not named.

A common weed below 3000 ft. Grows to 4 or 5 ft. but often flowers when 1 ft. high Specimens are from base, Mamatoca, 100 ft. Nov. 10 Full set, good.

1195 Amaranthus viridis L.
River-shore, Londa, 150 ft. July. Herb, 2 ft. No specimens except 1 for N.Y.

1196 (not named) Villa Real (plantation 35 miles East of Santa Marta) in a camp clearing, Sept. 30, a strong-growing plant 6 ft. high with many branches; very different in appearance from No. 1194
No specimens except 1 for N.Y.

1197 Amaranthus spinosus L.
A common weed in clearings and waste places below 2500 ft. Grows to 3 or 4 ft. more spreading in form than No. 1194 (Specimens are from Londa, Sept.) Full set

1198 Gomphrena glabrata (Mart.) Moq.
Suffrutescent, diffuse and often vine-like, 5-10 ft. Abundant on sandy soil near the seashore, and occasional inland, in shady places, to 800 or 1000 ft. Flowers Aug.-Dec. and probably through the year. (specimens are from dry forest, 10 miles southeast of Londa, 800 ft. Oct. 26) Flower-heads white. Specimens from St. Marta sent to New York.

1199 Alternanthera paronychioides St. Hil. f
Trailing and rooting, 1 ft. Common locally on plains near the railroad line, not far from the sea. These plains are more or less flooded during the rains, but very dry at other times. Specimens are from Cienaga, Sept. 10 (Scant specimens; too small and have no roots.)

1200 Alternanthera polygonoides Moq.
Suffruticose, diffuse, 3-6 ft. Plains and sandy lands near the seashore. This species often covers the ground over large spaces. Small specimens are from Cienaga, Sept. 12; large one Playa Brava. Full set, some scant.

1201 Dianthera polyconoides Moq.

Spreading, to 2 or 4 ft. nearly prostrate. Observed only along the borders of swampy pools, 3 miles south of Mamatoca, 100 ft. Collected Aug. 13 Jan. 12 and April 10 24 specimens.

1202 Achyranthes aspera L.

Suffruticose, diffuse or decumbent, 2-2½ ft. Observed only at Guaira, 200 ft. in shady, damp places near the railroad station. Collected Sept. 12. Full set, but a little scant and some specimens not very good. No roots. Occurs in thickets Ll Libano swamps 100 ft.

1203 Cyathula achyranthoides Moq.

Upright 3 ft. Common locally in damp places, ravines etc. dry forest region, below 1500 ft. Flowers Nov.-Dec. Specimen is from Masinga, 400 ft., Nov. 17. Full set, good.

1204 Iresine interrupta Lenth.

A semi-scandent shrub, to 20 or 25 ft. Common locally in the dry forest region below 500 ft. (Santa Marta District) Flowers Feb.-March Specimens are from near Mamatoca, 100 ft. The one with expanded flowers collected Feb. 21; the others about Feb. 10. Full set, but scant and some have poor leaves.

1205 Chenopodium mexicanum Mart.

Shrubby or suffruticose, diffuse, vine-like over shrubbery 12-20 ft. Common locally in the dry forest region below 500 ft. Flowers Nov.-Jan. Specimens from Mamatoca, Quebra Concha, Cantilito and Londa sent to N. Y Full set.

1206 Chenopodium altissimum Kunth.

A vine-like shrub (habit of No. 1205) 10 ft. Thicket near seashore, sandy soil, Buritaca, 50 miles East of Santa Marta, Sept. 22

1207 Celosia virgata Jacq.

Suffruticose, erect 3-4 ft. Local in the dry forest, region, shady or damp places. The larger specimen is from a ravine 5 miles North of Bonda, Nov. 1; the smaller one (in bud) from Bonda, Oct. 15. Full set.

1208 Dianthera comata L. =1416

Herb, 1-2 ft. Common on swampy lands, in ditches etc. below 500 ft. and especially near the coast, the specimens are from Santa Marta, 8 Sept. 19 Full set, some not very good. Get roots.

1209 Iresine paniculata (L.) O.Ktze. Iresine diffusa A. and B. (changed) herb or suffruticose, diffuse and vine-like 2-6 ft. Local in dry forest and thickets below 1500 ft. Blossoms Aug. Nov. or Dec. Specimens are from mountain-side forest 3-10 miles east of Londa, about 1500 ft. Sept. 20. Full set.

1210 Iresine interrupta (Lenth) Iresine elatior Eich. (change of name) Erect, branching only above, 3-4 ft. Occasional in damp clearings, open water courses etc. below 1000 ft. Flowers Nov.-Jan. Specimen collected 7 miles north of Londa, about 150 ft. Open place in forest by a stream, Jan. 11 20 specimens; Full set.

- 1211 Iresine paniculata (L.) =1209
Diffuse and subscandent, 8-10 ft. Flowers white. Abandoned clearing, Sierra del Libano, 6000 ft. Jan. 22. The leaves are often unequal at the base. Full set.
- 1212 Iresine celosioides (L.) (=1214, 1216) Iresine diffusa W.&B. (changed)
Found among my specimens without note, Santa Marta District, perhaps from Minca, 2000 ft.
- 1213 Iresine gracilis Moq.
Suffruticose, erect, branching or without branches, 3 ft. Rare in damp clearing at Las Nubes, 4500 ft. Dec. 16. Flowers purplish pink.
Full set, but many flower-heads are small. Get better leaves.
- 1214 Iresine celosioides L.
Erect, branching, to 3 ft. Damp clearing, Las Nubes, 4500 ft. Dec. 15. Flowers white. Only two or three roots seen. Full set, but about half the specimens are scant. Get more and better leaves. Very large plant.
- 1215 = 1211
Herbaceous or suffruticose, diffuse and vine-like, 7 or 8 ft. among bushes, and it is then erect. Common in damp clearing at Las Nubes, 4500 ft. Collected Dec. 17. Flowers white. Full set.
- 1216 Iresine celosioides L. (=1212)
A vine, to 20 ft. Thicket in a damp ravine Las Nubes, 4500 ft. Dec. 16. Full set, but some specimens scant and nearly all have poor leaves.
- 1217 Iresine paniculata (Ktze.) (=1209)
Diffuse, 3-4 ft. Clearing, damp hillsides, Las Nubes, 4500 ft. Dec. 5
15 specimens.
- 1218 Apythemia candicans Swz. (var. of 76?)
Found principally in shady and damp places. The specimens are from Honda, 1500 ft. Aug.
1218 (var. of 1474 ?) A low shrub, sandy seashore; common along the northern coast. Specimens are from Playa Brava, March Full set.
- 1219 Lippia nodiflora (L.) Michx.
Trailing and rooting, 2-3 ft. Rare at Cienaga, marshes and plains near the seashore, Sept. 6-12 .9 specimens; scant, and pieces are too small.
- * Euphorbia berteriana -1220, Balb. 1220
1220 Playa Brava, on dry rocks close to the sea, Nov. 2.
No specimens except one for New York. No dissecting material
- 1221 Euphorbia acenoptera Bert.
Prostrate, spreading, 1 ft. Sandy places below 500 ft. in clearings, by roadsides etc. The specimen is from Don Jaco, in a ravine near the sea, Sept. 14. The species often covers the ground over large spaces. It appears to be a perennial. 22 specimens, scant.

1222 (not named)

Minca, 2000 ft. on damp, shady rocks exposed to floods from a stream,
Nov. 23.

1223 Pilea dauciodora Wedd.

Las Nubes, 4500 ft. Dec. 15, on wet logs and rocks by a stream, shady
ravine. I have the same species from a damp clearing, Sierra del
Libano, 6000 ft. Jan. 23 Full set.

1223 Specimens collected in a glen above Onaca, 3500 ft., growing on damp
rocks near water. I found it in several localities near Onaca in similar
situations, 3500-4500 ft., but it is nowhere common.

1223 17 additional; there were 9

1224 Euphorbia paniculata Orteg.

herbaceous, 2-2½ ft. This is the variety generally seen in damp clearings
below 1000 ft., but it is not common. Specimen collected near Masinga,
Nov. 7

1224 Specimen collected near Londa, 150 ft. July 15. Full set.

1225 Euphorbia heterophylla L.

This variety is seen occasionally on the open grass lands below 1000
ft. and sometimes in clearings. The specimens are from open lands 2 m
iles east of Masinga, 500 ft. Oct. 27 1 specimen.

1225 The specimens are from open lands 2 miles east of Masinga, 500 ft.
Nov. 3

1226 Euphorbia heterophylla L.

Occasional on grassy open hillsides, 500-2000 ft.; this variety is rarely
seen in clearings. Herbaceous, 2-3 ft. Flowers July-Dec. Specimens are
from Camp Alegre, 1500 ft. Oct. 21 Full set.

1226 Herbaceous, 2-3 ft. Specimens are from Campo Alegre, Oct. 21. Full set.

1227 Piper salinasarium subscabrifolium C. DC.

A shrub or small tree to 15 ft. (or 20) Equally common with No. 386, but
generally found at lower levels, below 1000 ft., in woods near streams. The
specimens were collected near Londa, 2500 ft. July. 15 specimens.

Forest, Cavagualito Nov. 15 Very common in clearing. Occasional in for-
est.

1228 see 386 Should not this be P. aequale lasiocarpum C. DC? yes.
Shrub, 6-8 ft. Occasional in clearings at Valparaiso, 4500 ft. Collected
Feb. 25. Full set, poor.

1229 Piper aduncum (=386)

A shrub or small tree, to 20 ft. Common in damp places, forest or
clearings below 3000 to 2500 ft., but especially from 1000 to 2400 ft
Specimen is from Cacagualito, 1500 ft. Nov. 15 Good, full set.

1230 Piper divaricatum ^{Meyer} ~~1231~~, 1235 (see 386)

1230 Piper

A tree, to 40 ft., but flowers when 6-8 ft. high. Common on mountain-side
forest, 3500-5000 ft. The fruiting specimen is from Valparaiso, 4500 ft
Feb. 24; the other from the Las Nubes Road, about 3500 ft. Feb. 6

Full set.

~~1230~~ (Add to previous one). "Piper santa-martanum C.DC. pp this one used
geniculatum Swz. Forma d. pp Change."

1231 Piper divaricatum Meyer

A tree or shrub, to 20 ft. Common in damp, wooded valleys near Valparaiso,
 4000-5000 ft. Specimens collected Feb. 24 Full set.

Piper aequale Vahl. (change)

1232 Piper lorucunum C.DC.

A shrub, 4-6 ft. Common in damp forest, 3000-2500 ft. Specimen is from the
 Agua Dulce Road, about 1000 ft. Jan. 7 A fine set.

1232 Shrub, 6 ft. Low forest, Don Diego, May 22

1233b Piper crenulatum C.DC.

Shrub, 7 ft. Common in damp ravines by ~~mountain~~-streams, heavy mountain
 forest, 5500-6000 ft. Sierra del Libano, Collected March 7. Flower-
 spike white. Full set but scant and some poor.

1234 Piper Peltobryon C.DC.

A shrub to 3 ft. Rare in damp forest, generally in ravines; 2500-4000 ft.
 Specimens are from Manzanares about 3500 ft. March 1. The leaves are
 polished above, whitish beneath; spikes white. Full set, good.

Fruit Don Diego, 200 ft. July 14

1235 Piper divaricatum Meyer (=1230) Piper acutilimbum C.DC. (change)

Tree to 20 ft. Occasional in mountain forest near Valparaiso, 4000-5000
 ft. Collected March 13. Full set, some not very good.

1236. Piper smilecifolium H.B.K.

Shrub or small tree, 3-15 ft. Common in the damp forest adjoining the
 coast, from Don Diego to Cacagualito, below 1500 ft. Collected at Don
 Diego, Sept. 20 Fine, full set.

1237 Piper auritum H.B.K.

A tree, 15-20 ft. Damp forest, mountain sides, 4000- 6000 ft. Full set,
 good. Specimens from Valparaiso Feb. 24 and El Libano 6000 ft. Jan. 23.

1238 Piper obliquum P. et P.

A small tree, to 20 ft. Rare in mountain-side forest above Valparaiso,
 about 5000 ft. Collected in March. Full set, good.

~~1239-Piper-marginatum Jacq. (=1240)~~ ~~1240~~ ~~1239~~

1239 Piper marginatum Jacq. (=1240.1242)

A slender-branched, somewhat diffuse shrub, 5-6 ft. Occasional in damp
 forest, 1000-2500 ft. Specimens are from Minca, 2000 ft. Aug. 5. 3 specns.

1240 Piper marginatum Jacq. (=1239)

Shrubby, 3-5 ft. Common in damp forest below 1000 ft. Specimens col-
 lected in a ravine near Londa, 250 ft. Aug. 4. 13 specimens.

1241 Peperomia Heydei brevipedunculata C.DC.

Rare. Observed only in damp forest, ravine near the Onaca Road, about
 1200 ft. Dec. 5. On rotten logs. The root is short and fibrous. 20 sp. scant.

1242 (=1239)

A shrub, 3-8 ft. Damp forest, Cacagualito, 1500 ft. Nov. 15. The common form in this locality. Probably all my Schillerias are to be referred to one species, but the varieties being more or less local, I have thought it safe to give them numbers. 12 specimens.

1243 Heckeria peltata (L.) Kunth.

Shrub (or suffruticose) 2-4 ft. Common in damp places, forest and clearings below 2000 ft. Specimens collected near Bonda, 150 ft. July 19. Common at Don Diego. About 15 specimens.

1244 Heckeria umbellata (L.) Kunth.

A shrub (or small tree) 5-8 ft. Local in damp, open places, near water, 2000-3000 ft. The specimen was collected near Agua Dulce, about 2200 ft. Aug. 5. 3 specimens.

1245 Sphenoclea Zeylanica L.

Suffruticose, erect, branching, 3-4 ft. Rare in boggy, open places at Cienaga, plains near the sea-level. Collected Sept. 12. 5 specimens.

1246 Microtea debilis Sw.

Decumbent (or when small) erect. Local and rare in shady, damp places below 500 ft. especially near the coast. Specimens are from Buritaca, on the coast 50 miles east of Santa Marta, Sept. 23. Full set.

1247 (same as 388?) Peperomia pellucida (L.) (=388)

Agua Dulce Road, about 1200 ft. Damp forest on a rock, Aug. 27. Leaves thickish, light green. 2 specimens.

1248 Peperomia pellucida (L.) Kunth. Erect, common locally in open or somewhat shady, damp situations, crevices of rocks, etc. below 2500 ft. The larger specimen is from Minca, 2000 ft. Aug. 8; the other from Cienaga, near sea-level, Sept. 12. The leaves are dark green, succulent. No specimens except for N.Y. and Carnegie.

1249 Peperomia hispidula A. DC.

Erect or ascending. Wet ground in clearings and forest on rotten logs, 4500-6000 ft. Not often seen, but where it occurs it often covers the ground thickly. Specimens are from ~~Letto~~ Las Nubes, 4500 ft. forest, on a log, Dec. 17. Full set.

1250 Peperomia magnoliifolia (Jacq.) (=1251, 1252)

Note lost. Mountain forest below 5000 ft. Probably from Las Nubes, 4000 ft. Dec.

1250 Specimen from Alto de Cielo, 5000 ft. ; damp thicket, on a log, Dec. 12

1251 Peperomia magnoliifolia (Jacq.) C. DC. (=1250)

Las Nubes, 4500 ft. damp forest, on log, Dec.

1251 Same as 1250

1252 Peperomia magnoliifolia (Jacq.) (=1250)

Trailing and rooting to 2 ft. Common locally on rocks in damp forest, 1000-3000 ft. Specimen is from Campo Alegre, 1500 ft. Nov. 20. Full set. No dissecting material.

1253 Peperomia Carlosiana C.DC.
Specimens collected near Agua Dulce, 2200 ft. Oct. 13: on rocks in a
camp, shady ravine. The species proves to be common locally in ravines
1500-3000 ft., generally on rocks, sometimes on trees.

1253 Observed only on the trunk of a large tree by a stream, forest 7
miles South of Mamatoca, about 400 ft. Nov. 21. Full set.

1254 Peperomia pereskiaefolia santa-martana C.DC.
Trailing and rooting on rocks or logs. Occasional in forest ravines.
500-1500 ft. Leaves succulent, dark green. Specimens collected near
Cacagualito, 1500 ft. Dec. 22. Full set, fair.

1255 (-1257, 2110) Peperomia alata F. et P. ^{on trees. The}
Mountain Forest, about 4500 ft. on logs, ^{specimen is from Las}
Nubes, Dec. 18 ^{3 specimens}

1256 Peperomia reflexa A.DC.
Rare on trees, mountain forest, 5000-6000 ft. Specimens are from the
Sierra del Libano, Collected in Jan. and May. 11 specimens.

1257 Peperomia petrophila C.DC. (changed) from Peperomia alata F. et P.)
Rooting on logs and rocks, damp, shady forest, Las Nubes, 4500 ft.
Dec. 17. Full set
1257 Specimen from a damp, shady glen, Sierra de Onaca, 5000 ft. Aug. 22
The species occurs lower, to 3500 ft.

1258 ~~Peperomia~~-petrophila--

1258 Peperomia petrophila C.DC.
Local and rare on wet rocks, shady banks of stream, 2000-5000 ft.
The specimens are from Minca, 2000 ft. Nov. 23 Observed also at Las
Nubes, 4500 ft. Dec. 17. 4 specimens

1259 Peperomia barbarana (L.) Kunth C.DC. (?)
Occasional on damp rocks, heavy mountain forests, Sierra del Libano,
5000-6000 ft. Collected March 6 14 specimens

1260 Peperomia quadrifolia (L.) Kunth.
Las Nubes, 4500 ft. Damp forest, glen by stream, on a log, Dec. 16
No specimens, except 1 for N.Y.

1261 Peperomia galioides H.B.K. -1261a
Erect, but rooting at base. Grows to 2 or 2½ ft. but flowers when small.
Common locally in damp valleys near streams, about 4500 ft. in more or

less open places, generally on rocks. Specimens are from Las Nubes,
Dec. 18. Full set, good.

Occurs near Agua Dulce 2200 ft.

1261a Peperomia galioides H.B.K. -1261

1262 Begonia stigmosa Lindl.

see p.143

1262 Begonia rtigmosa

Mountain forest, 3500-5000 ft. Common locally on rocks and the ground. Flowers Dec.-Feb. (leaves from the root) Specimen is from the Las Nubes Road, 4000 ft. Dec. 20.

Full set, some specimens might be improved. Get roots with flowers and ♀ flowers and fruit.

1263 Begonia ottonis

Occasional in Camp Forest, 500-2000 ft. on rocks or the ground. Erect, 3-5 ft. Flowers Nov.-Jan. The fruited specimen is from the Agua Dulce Road, about 1200 ft. Jan.; the other from the same locality, Dec. Full set.

1264 (not named)

Common on rocks in damp, shady places, 800-2000 ft. and, occasionally, in deep glens, as low as 400 ft. Flowers Nov.,-Jan. The specimens are from the Agua Dulce Road, about 1000 ft. Nov. 21 Full set.

1265 (not named)

On wet rock by the stream, forest and clearing, Las Nubes, 4500 ft. Dec. 15. Local and not common. 14 specimens, not very good.

1266 Begonia Seemannii A. DC.

Upright, 2-7 ft. Las Nubes, 4500 ft. damp glen in the forest, on the ground, Dec. 18. The few specimens seen were in fruit, and in bad condition. Fruit clusters from axils of leaves. 4 specimens ♂. Fruit for N.Y.

1266 Flowering specimen from a damp glen, forest, Sierra de Onaca, 5000 ft., Aug., 22. The plant is erect or somewhat diffuse, and grows to 4 or 5 ft.

1267 Begonia scandens Swz.

Trailing or scandent to 10 ft. rooting at the joints. Occasional in damp forest, 1500-3000 ft. Flowers Dec. -Feb., white. Specimens were collected near Don Amo Viejo, about 2000 ft. Jan. 14 Full set.

1268 Begonia longirostris Benth.

Erect, 3 ft. Las Nubes, 4500 ft. Common in a damp clearing near streams, Dec. 18 Full set but poor and scant. Get more ♀ flowers.

1269 Begonia fuchsiioides Hook.

Erect, 6 inches to ♂ 3 ft. Common in clearing at Las Nubes, 4500 ft, principally on damp hillsides, collected Dec. 15 14 specimens, not very good.

1270 Begonia fuchsiioides Hook.

Las Nubes, 4500 ft. Dec. 18 Damp forest, glen by a stream, on logs. No specimens except for N.Y. and Carnegie.

1271 Coccocypselum canescens Willd.

Diffuse, rooting, 3 ft. Flower blue; berry dark blue, Las Nubes, 4500 Dec. 5 Edge of dry forest, on a ridge. Full set; specimens fairly good but badly pressed.

A vine, to 25 ft. Observed only in mountain forest near
1272 not named (not named) Cacagualito, about 1800 ft. Jan. 5
Full set, but scant.

1272 Specimen collected near Minca, 2000 ft. border of forest, Oct. 16 Sa
Several vines were observed in this locality, but only in bud.

1273 Cornutia pyramidata L. No specimens.; no labels.

1274 Solanum carabense Kunth. " "

1275 ^{Valerianodes}~~Valerianodes~~ orubescum (L.) Kuntze. No specimens; no labels.

1276 Valerianodes mutabilis (Jacq.) Kuntze.
Shrubby, 4-5 ft. Very rare on open lands or dry thickets, 2000-2500 ft.;
only two or three observed. Flowers Aug.-Dec., pink. Specimen is from
open lands 9 miles East of Londa, about 2000 ft., Aug. 7 Full set.

1277 Lantana Camara L.

A shrub to 6 or 8 ft. Common on dry, rocky places, thickets near the
seashore. Flowers orange (changing to red?) Specimen was collected 5 ~~mi~~
miles South of Gaira, Nov. 3 4 specimens.

1278 Phoradendron latifolium

Rare on trees in dry forest near Agua Dulce about 2200 ft. The larger
leaves- specimen was collected near June 8; the other Jan. 18. Grows
to 8 ft. Full set.

1278 Specimen from Onaca, 2500 ft. on tree, border of forest.

1279 (not named)

Rare on trees in the forest region near Cacagualito, 300-1500 ft. It ~~grows~~
grows to 2 or 3 ft., with slender and sometimes loosely twining branches.
Flowers white. Specimens collected near Cacagualito, 1500 ft., Dec. 26.
I have flowering specimens collected in Aug. Full set.

1280 Phoradendron quadrangulare (A.B.K. Krug. et Jrb.)

Common on trees in dry thickets below 500 ft., and especially near the
sea at Cienaga, Santa Marta etc. Grows commonly to 3 ft., but some-
times to 4 or 5 ft. Specimens were collected near Londa, 200 ft. Sept.
20. Full set.

1281 Phoradendron rubrum (L.) Griseb.

(var. of 1280?) The stems are nearly cylindrical) near Londa, 150 ft.
Sept. 30. Full set.

1281 Specimens from Onaca, 2500 ft. on a tree, border of forest; grows
to 2 ft. This appears to be distinct from No. 1280 by its cylindrical
stem, narrow leaves etc. Full set.

n?)

1282 Phoradendron trijervium (Lam.) Griseb. -1285

Occasional on trees, thickets and dry, scrubby growth below 1000 ft.
Specimens collected near Londa, 200 ft. Sept. 15 specimens, mostly
in bud.

Krug. et Jrb. (?)

1283 Phoradendron tetrapterum (Lam.) Griseb. (-12)

Common in the dry forest region below 500 ft. It forms large masses, more
or less pendent, sometimes to 5 or 6 ft. Specimens were collected near
Londa, 150 ft.; the larger ones Jan 8, the smaller ones Aug. 20 Full set.

1284 Phoradendron rubrum Nutt.

On trees in the dry forest region, below near Bonda, 250 ft. Aug. 20.
8 specimens.

1285 Phoradendron trinervium (Lam.) Griseb. (=1282)

Common in dry forest, below 800 ft. It forms small masses, generally not over 15 or 18 inches. Specimen was collected 5 miles north of Bonda, about 100 ft. Dec. 25 Full set.

1286 Oryctanthes ruficaulis Eichl.

^ Bonda, 150 ft. Apr. 3 On tree, high river banks. Grows to 2 ft. No specimens except for Carnegie and N.Y.

1287 Oryctanthes ruficaulis ~~Eichl. (=1286?)~~ Eichl. (=1286?)

On tree, thicket on open, dry hill, 400 ft. 3 miles North of Bonda, Dec. 23. 3 specimens, poor.

1288 Oryctanthes cordifolia Urban

Common on trees near the coast in the forest region 30-35 miles East of Santa Marta. Also collected at Campo Alegre, 1500 ft. Specimens are from Luritaca, thickets near the coast, Sept. 25. Grows to 3 ft. Full set, but rather scant, and some are not good.

1289 (not named)

Top of the San Lorenzo Ridge, about 7500 ft. March 10, on trees. 1 specimen

1289 Specimen from the top-- Morqueta Mountain, thicket on a ridge; 7500 ft. Dec. 28 on a tree.

1290 Phthirusa theobromae (Willd.) Eichl. =1292

Common on trees below 2000 ft. in dry situations. The branches are long and vine-like, often 5-6 ft. Flowers white. Specimen collected near Masinga 250 ft. Aug. ; the fruiting specimen in Oct. 16 specimens.

1291 Phthirusa glandulosa Rusby

Bare on trees in thickets near Mamatoca, 100 ft. July 28. Flowers white. Branches more or less drooping or pendent. 2p3 ft. 5 specimens.

1292 (same as 1291?) (Minca, 2000 ft. thickets on the edge of open land) grows to 5-6 ft. Flowers white, fragrant. Collected June 9, 20 specimens.

1293 No specimens; no labels. Opuntia tuna Mill?

1294 Rhipsalis platycarpa Pfeiff.

Diffuse, branching 4-6 ft. Flowers red. Damp forest near Masinga Vieja, 600 ft. Jan. Rare.

Full set, not very good.

1295 Pedilanthus tithymeloides Poit.

A shrub, 5-6 ft. Occasional in forest, hillsides, 500-2000 ft. Specimens collected 8 miles East of Loh Bonda. Flowers scarlet.

12 good specimens.

1295 A shrub, 3-6 ft. Occasional on forest hillsides, 500-2000 ft. Specimens collected 3 miles east of Bonda, about 1000 ft. Jan. Flower scarlet.

1296 Euphorbia comosa Vell.

S Shrub, to 5 ft. Plains near Cienaga (a few feet above sea-level) in thickets, Sept. 10 Full set, but poor.

1296 Shrub to 5 ft.

1297 Jussiaea pilosa N.L.K.

Erect, to 2 ft. Local on boggy land not far from sea-level. Flowers observed in Aug. and March, and probably it blossoms throughout the year. Petals (5) bright yellow. Specimens were collected 3 miles South of Mamatoca, 100 ft. March 6

Full set, a few poor but mostly good. Get fruits for some specimens

1298 Jussiaea angustifolia Lam. -1299

Herbaceous, generally without branches, 1-2 ft. Occasional on boggy land near Bonda, 100-300 ft. Specimen was collected Sept. 23, 19 specimens.

1299 Jussiaea angustifolia Lam. (-1298)

A shrub, with numerous branches, 3-6 ft. Common on swampy flats, in ditches etc. near the sea-shore; rare inland to 500 ft. Specimens are from Cienaga, Sept. 11 17 specimens.

1300 Jussiaea erecta L. Erect, more or less branching, 3-5 ft. Swampy places below 500 ft. especially open plains near the coast. Commonly associated with No. 1299, but readily recognized by its smaller flowers. The specimen is from Buritaca, on the coast 50 miles East of Santa Marta, Sept. 24 Full set.

1301 Cochlosorus acutangulus ~~1301~~ Lam.

Erect, or more or less spreading, to 2 ft. Common locally in clearings, somewhat moist ground, below 2500 ft. Flowers Sept.-Dec. deep yellow. Specimens were collected near Masinga, 250 ft. Nov. 14

Full set. Specimens as large as this one, fine. No roots.

m1302 Talinum crassifolium Willd.

Erect, 1 ft. Rare on rocks by the seashore. Flowers Sept.-Nov. (specimen collected on the coast 3 miles South of Gaira, Nov. 8.) No specimens except for New York and Carnegie. These are good but have no roots.

1303 (not named) Erect, 4-18 inches Moderately common in damp and generally shady places below 1500 ft. Flowers light rosy, It appears to flower more or less throughout the year. Specimens collected at Bonda, 150 ft. July. No specimens except for a poor one for N.Y.

1304 Trianthema monogyna L. (monogyna)

Trailing on sandy seashore, Common at Cienaga, Santa Marta etc. Specimen is from Cienaga, Sept. 12 No specimen except one for N.Y.

1305- Portulaca oleraceae L. = 2077
Prostrate, 4-5 inches. A common weed in clearings and waste grounds below 3000 ft. Flower yellow. Specimen is from Onaca, 2500 ft. Dec. 5
No specimens except a poor one for N.Y.

1306 Polygala paniculata L.
Local and rare on open rocky ridges and grass lands, about 3000-3500 ft. Specimens collected above Jiracasaca, Sept. 27 Flowers white.
3 specimens, scant.

1306 Specimen from Onaca, 2500 ft. Aug. 28 The plant proves to be common locally on open slopes, 2000-4000 ft.

1307 Polygala paniculata were
Rare at Minca, 2000 ft. on open grass lands. Specimen was observed at the end of Nov.. Specimen was collected June 4. It grows to 1 ft. with many branches. No specimens except for N.Y. and Carnegie.

1308 Gymnosiphon orobanchoides (MS. name Kew)
Mountain forest at Las Partidas, 3500 ft. March 4. On roots of trees; very rare. No specimens except for N.Y. and Carnegie.

1309 Polygala violacea Vahl.
Suffruticose, Erect, 3 ft. Rare in dry forest, about 2000-2500 ft. Specimens were collected near Agua Dulce, June 3 Flower greenish.
Full set.

1309 Specimen from the Minca Road, 2000 ft. in hillside thickets, Oct. 21. The plant grows to 4 ft., but often flowers when 1 ft. high.

1310 Piriqueta viscosa Griseb.
Erect, 6-24 inches. Rare on open, grassy hillsides, generally near the border of forest at Escalera de los Indios, 600-1000 ft. Flowers observed July-Oct. salmon colored Specimens collected Aug. 22
3 specimens, scant.

1311 Centunculus pentandra F.Br.
Locally common on rocks and banks open land, 2000-3000 ft. Flowers Aug. -Nov. Specimens are from Jiracasaca, 2500 ft. Sept. 30
Full set, a little scant and most specimens small Grows to 8 inch branching. Large one sent to N.Y.

1312 Cardamine ovata Benth.
Diffuse or decumbent, 2-2½ ft. Local in open damp places in the forest, Sierra del Libano, 5500-6000 ft. Collected March 6 (observed in flower in May) Flower white. 3 poor specimens; the set was eaten by pests. Fairly good ones for N.Y. and Carnegie.

1313 Cleome pilosa Benth. ✓
Erect, 4-5 ft. Minca, 3000 ft. in an old clearing. Nov. 23 Full set, fair.

1314 Cleome glandulosa R. et P.
Erect, 3 ft. clearing by a stream, Las Nubes, 4500 ft. Dec. 15 My specimens were badly eaten by pests; I send the best that remains. The species appears to be rare. Terminal head of large, white flowers.

1315 (var. of No. 5557) Spananthe paniculata Jacq.
Minca, 2000 ft. Clearing, -Aug. 6 Erect, 3 ft.
No specimens except for New York.

1316 Hydrocotyle quinqueloba R. et P. ~~Hydrocotyle~~ martaensis Rusby n. sp
Diffuse, rooting, 3-4 ft. Covers the grass on wet banks, in open land
Sierra del Libano, about 7000 ft. Feb. 26.
Full set, some specimens scant.

1317 Hydrocotyle quinqueloba R. et P. ~~Hydrocotyle~~ acontifolia Rich.
(=1316) Diffuse, rooting 2-3 ft. Local and rather rare, boggy places near
streams, 4000-6000 ft. Specimen is from a clearing, close to a stream, at
Las Nubes, 4500 ft. Specimens from the forests have longer and darker
colored leaves, but do not otherwise differ. Flowers observed in a clear
ing, Sierra del Libano, 6000 ft. in May. Full set.

1318 Koeleria arystifolia (Hook.) Regel.
Local on damp rocks, forest or shady places in the open land, 500-2500
ft. Flowers Aug-Nov. white, throat tinged with rosy. Specimens were
collected in forest near Masinga Vieja, about 800 ft. Sept.

1319 Cissus sicyoides =2724
A vine, to 6 or 8 ft. Common in dry thickets, rocky hills near the sea.
The specimens were collected at Santa Marta, Sept. 15 1 specimen

1320 Boerhaavia erecta L. =1322
Ascending, 2-3 ft. A very common weed, especially in damp clearings
below 3000 ft. Flowers principally June-Nov., but more or less through
the year. The flowers are crimson. Specimen collected near Mamatoca,
100 ft. Nov. 13 Full set, fine.

1321 Boerhaavia paniculata Rich.
Ascending, 1-3 ft. The commonest form in clearings and on waste lands
below 3000 ft. Flowers (at least below 1000 ft.) June or July, Dec. Flow-
er light rosy or, strictly speaking, white with crimson streaks. The
panicle is at length very long and spreading. Specimens are from Honda,
150 ft. Nov. Full set.

1321 Variety from irrigated land, El Libano Estate, 100 ft. Oct. 8
The flowers are white.

1322 Boerhaavia erecta L. =1320 (This name is erased on list. D.W.S.)
Near Honda, 150 ft. July. My note on this species was lost, but I
think that the flower was red. 4/15 8 specimens.

1323 Boerhaavia viscosa Lag. =1499 Trailing, on sandy seashores; common.
Flower crimson or blood red. Specimens are from Playa Braba, Apr. 3
2 specimens, scant.

1324 Mirabilis Jalapa L. called here "buenas tardes" It is sometimes culti-
vated and is frequently seen growing wild in damp and shady places,
clearings and sites of old houses. It appears to be an introduced spe-
cies, and, though self planting, can hardly be regarded as thoroughly
naturalized. The flowers of wild specimens are red. (Specimens are from
Cienega, Sept. 7 specimens.

1325 Antigonon leptopus Hook.

A vine, to 3 ft. Rare in thickets below 500 ft. Flowers observed in Sp. Sept. and Feb. light red. Specimen was collected near Mamatoca, Feb. 2. This or a similar species, is sometimes cultivated, and the wild specimens may be derived from planted ones. 5 specimens.

~~1325~~ 1326 Monnina procumbens (Mill.) Kütz.

Local in damp clearings, 300-2500 ft. Flowers Nov.-July, yellow. Specimen is from a clearing near Masinga, -Agua Dulce about 400 ft. Dec. 7. Specimens from Agua Dulce, collected in Feb. have smaller leaves, and turned black in drying; but I cannot detect any other differences
Full set.

1327 Sauvegesia erecta L. (see 1660)

Spreading and rooting, or erect, 3-20 inches, Campo Alegre, about 1500 ft hillsides, in thickets, Nov. 20. Flower white, base of inner petals deep pink. Small specimen collected at Don Amo Viejo, about 2000 ft. Jan. 13.
Full set.

1328 Stemodia parviflora Ait.

Minca, 2000 ft. damp dooryard in crevices of bricks, Aug. 8 A single root found.
Full set.

1328 Specimen from Minca, 2000 ft. Oct. 16. in the same dooryard where the original specimen was found; many plants were found at this place, but I have not seen it elsewhere. The dooryard was paved (for drying coffee) and the plants grew in crevices of the bricks. From the situation it would appear to be an introduced species. Flower white with a pinkish tinge. The plants are spreading or erect.

1329 Ilysanthes gratioloides Benth.

Ascending or trailing, and rooting 6-24 inches. Observed only in a swampy place, back of River Luritaca close to the sea, 50 miles east of Santa Marta, Sept. 24 12 specimens, scant.

1330 Scoparia dulcis L.

Erect, 2-2½ ft. A common weed in open places below 3000 ft. In damp localities it blossoms through the year. Specimen is from Londa, 150 ft. Nov. Full set, some poor.

1331 Cabraria biflora L. (var. of No. 551)

Erect, branching, to 3 ft. Rare in open, damp situations not far from sea-level. Corolla white. Specimens were collected at Londa, 150 ft. Jan. 16. Full set, good flowers but leaves poor.

1332 Geophila herbacea (L.) Morong.

Damp alluvial forest near sea-level at Don Diego, 55 miles east of Santa Marta, Sept. 23. Flower white; berry scarlet.
3 specimens, not very good.

1333 Geophila violifolia DC.

1333 Geophila violifolia DC.

--150--

Occasional in damp, low forest between Calavasa and Don Diego; collected Sept. 30. Flower white; berry nearly $\frac{1}{2}$ inch in diameter purplish-black. No specimens except rather poor ones for Carnegie and N.Y. No dissecting material.

1334 Luchnera rosea H.B.K. ?

Erect, to $2\frac{1}{2}$ or 3 ft. very rare on open grass-lands, 2500-3000 ft. Corolla rosy-purple changing to blue. Specimen was collected near Caca-gualito, 1800 ft. Apr. 28. I have flowering specimens collected in Sept. 4 specimens.

1335 Arenaria lanuginosa (Michx.) Pohrb.

Diffuse in herbage to 3 ft. Top of the Sierra del Libano Ridge, about 7000 ft. open land, Feb. 26. 2 specimens.

Leaf of Musaceae with drooping flowers, Don Diego, May. Flower in press.

1336 Marathrum utile Tulasne. ?

Aquatic in swift-flowing streams., on rocks, below 2500 ft. The long submerged leaves cover the rocks in many places. During the dry season most of the larger leaves remain submerged; the plants on rocks above the water blossom Jan. -Feb. Specimens collected at Bonda 150 ft. Specimens collected at Feb. 1 Got leaves for N.Y. and Carnegie.

~~1337-Turnera--~~ 1337 Jussiaea repens (L).

Aquatic, rooting and lower leaves submerged 6-15 inches; flowers white. In still (fresh) water, pools etc. near the sea. The specimens are from near Cienaga, Sept. 10. Seen only in two or three places. 4 specimens, scant and too small.

1338 Turnera Purpurea L. (?)

Ascending, 6 inches. A single root found on dry rocks by the seashore, 3 miles South of Gaira, Nov. 8. No specimens except a scant one (without roots) for N.Y.

1339 Rubus Bogotensis H.B.K.

Generally erect, 4-5 ft. Common on open ridges 6000-7500 ft. Sierra de San Lorenzo and Sierra del Libano. Flowers Jan.-April or May (fruit beginning to ripen, observed Feb. 27) Petals white. The fruit, though it has the true blackberry flavor, is inferior to the N. American "tall blackberry", being smaller and ripening irregularly. Specimen is from the Sierra de San Lorenzo, 7000 ft. Feb. 27. Full set

~~1339 A bramble, growing to 4-5 ft. generally erect, common on open ridges, 6000-7500 ft.~~

1340 Artemisia Mexicana L. I judge that this is an introduced and imperfectly naturalized species in this region. The few plants observed were in village streets, below 500 ft. I have not seen it in cultivation and the natives regard it as a weed. Specimen is from Bonda, 150 ft. Nov. 11. Full set.

1341 Browallia cernise L.

Local and not common on damp, open or shady ground, 500-2000 ft.; flowers observed more or less throughout the year, but freely in Nov. Flowers light rosy. Specimens are from the Agua Dulce Road, in an old clearing, about 800 ft., Nov. 21. Stem rather flaccid.

Good, full set.

1342 (not named)

3-4 ft. Rare on open top of the San Lorenzo Ridge, about 7250 ft. Flowers collected Jan. 25; fruit Feb. 26. Most of the plants were in fruit in Jan. 1 specimen and some leaves.

1343 Belbunium diffusum Cham.

Shrubby, 3-4 ft. Rare on top of the San Lorenzo Ridge, about 7250 ft. Flowers collected Jan. 25; fruit 26. Most of the plants were in fruit in Jan.

1343 Belbunium diffusum Cham.

Vine, to 4 ft. Open top of ridge, Sierra del Libano, 7500 ft. pretty common, Feb. 27

Full set.

1344 Cordia Aubletii DC. 1779

A shrub, to 8 or 10 ft. Thickets above Don Amo, about 2500 ft. Dec. 6

Full set, fine.

1345 Polygonum hispidum ^{H. B. K.} DC. 1783 ft. Pools and swampy places, 2-5 miles South of Mamatoca, 100 ft. Collected March 16.

A fine, full series.

1346 Liophytum dendroides DC.

Common locally in mountain forest or damp clearings, 2500-5000 ft. Flowers Sept.-Jan. pinkish white. Specimens are from the Las Nubes Road, about 3500 ft. Dec. Grows on the ground. 21 specimens.

1347 Diastema longifolia Benth.

Rare in damp forest at Minca, 2000 ft. Aug. 5, on the ground or on rotting leaves rotten logs. Flower white, tube tinged with yellow.

Full set.

1347 Specimens collected near Onaca, at about 3500 ft. the larger one on boggy and shady ground in a ravine; the smaller are on rocks in a glen, by a cascade; both Aug. 18. I found the species in various places near Onaca, 3000-4500 ft., nearly always on damp rocks in glens near water.

1348 (not named)

Erect without branches except at the top, 4-8 ft. the soft, woody stem is two inches or more in diameter. Hairs slightly stinging and they sometimes produce an eruption similar to that of poison ivy; at least, the country people attribute cases of plant poisoning to this species. Flowers Dec.-Feb. Corolla purplish blue. This species has a wider range in altitude than any other known to me in the district. It is common locally on dry banks on the mountain sides, and is pretty common on the Sierra del Libano as high as 6500 ft. These specimens were collected near Papare, in a dry open ravine by the sea, Dec. 29 Full set.

1349 Wedelia cornosa Pers.

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Erect or spreading, 1-3 ft. Observed only on alluvial and more or less swampy land at Luritaca on the coast 50 miles East of Santa Marta, Sept. 23; generally found in shady places, and the narrow-leaved form was growing in shallow water. Not common. 19 specimens, scant

1350. Schultesia lesianthoides (Griseb.) ~~Beß~~-H. B. et H.

Local and rather rare in damp, shady places, below 2000 ft. Flowers Aug. -Dec. light rosy or salmon pink. Specimens were collected near Masinga, 250 ft. Nov. 28. Full set, good.

1351 Chelidanthus acutangulus (R. et P.) Gilg.

Erect, 2-4 ft. Occasional in dry forest, 2000-3000 ft. Flowers observed in July, Aug. Sept. and Dec. pale greenish. Specimens collected near Agua Agua Dulce, about 2200 ft. Dec. 3 23 specimens.

1352 Oxalis corniculata L. (?)

Rare in coffee orchard at Las Nubes, 4500 ft. Dec. 5. Flower yellow. (No specimens except for N.Y. and Carnegie.)

1353 Oxalis sepium St. Hil.

Erect, with a straight or more or less tortuous stem, 1-2½ ft. Local in shady places below 2500 ft. The plants vary in habit, and some of them approach No. 1354 in habit; but the stem is generally slender and the leaves scattered. Flower yellow, varying somewhat in size. The large specimen is from forest 6 miles East of Londa, 1500 ft. Jan. 5; the other from a ravine 3 miles North of Londa, 100 ft. Oct. 25. The species appears to blossom more or less throughout the year. 6 spec'ns.

1354 (var. of 1353?) Oxalis hegyaroides Tr. et Pl.

A tortuous shrub, 8-12 inches. Occasional in open lands, 1000-3000 ft. Flower yellow, not differing in appearance from that of 1353. The plant is generally free-flowering, and from its habit looks very different from the slender forms of 1353; but I am inclined to think that the habit is due to situation and that the two cannot be clearly separated even as varieties. Specimen was collected 8 miles east of Londa, 2000 ft., Jan. 5 12 specimens.

1355 Oxalis Barbellieri Jacq.

Rare in damp and sheltered places in clearings in clearings below 1500 ft. Flowers June-Oct. (or later?) light rosy. Specimens were collected near Masinga, Sept. 24 7 specimens.

1355 Specimen from a damp, open place on the Minca Road, about 1200 ft. Oct. 15. This is the largest plant I have seen, and the only one with a well-developed woody stem.

1356 Chenopodium ambrosioides L.

Erect, 1-3 ft. Cultivated (as a vermifuge etc.) but grows wild, freely in many old clearings, 3000 ft. to sea level. Specimens was/ collected near Masinga, 250 ft. Aug. 2

No specimens except one poor one for N.Y. This specimen from Londa.

1357 Rousselia cappulacea Gaud. Is this Rousselia ?

Spreading, sometimes prostrate. Rare in damp, shady places not far from sea level. Specimens were collected near Londa, 150 ft. Nov. 10 spec'n.

1358 (not named)

Erect, or more or less spreading, 10-20 inches. Common in dry forest 3-5 miles N. of Londa; not observed elsewhere. Specimen collected Nov. 29. Flowers Nov.-Feb. I failed to get good flowering specimens but will send some later. Full set, but some not good.

1358 Flowering specimen collected ^{June 6} (out of season) Corolla rosy.

1359 (not ^{named} Swampy or irrigated plains near the sea-level at Cienaga, Sept. 10. Occasional in shady places. Flower blue, blossom The few specimens seen in blossom were in bad condition, 4 specimens, poor
Erect to 2 ft.

~~1360--Stemmed--asa~~

1360 Stemodia duvantiifolia Sw.

Urbaceae, erect, 2 ft. Flower pale pink, Open, boggy ground at El Libano plantation, 5 miles South of Mamatoca, 100 ft. Specimens collected March 16; also observed in flower Nov. 25, in the same place. Full set, good.

1361 A diffuse shrub, 3-5 ft. Russelia sarmentosa Sw. Is this Bousselia? Occasional in mountain forest, 500-2500 ft. Flowers Sept.-Dec. or later, red. Specimens collected on the Agua Dulce Road, about 1500 ft. Nov. 22 Full set.

1362 Stachys Costaricensis Brieg.

Ascending, diffuse, rooting, 2-3 ft. Open, damp ground in clearing near a stream, Las Nubes, 4500 ft. Dec. 15. Flower light rosy or rosy purple. I have specimens from a clearing in the Sierra del Libano, 6000 ft. Jan. Full set.

1363 Salvia occidentalis Sw.

Rooting, diffuse or ascending, 12-18 inches, common in damp ground, clearings etc. below 2500 ft. Flowers Nov.-Dec. blue. Specimens were collected near Londa, 150 ft. Nov. Full set. (Nov.-Dec. in the lowlands, Dec.-Feb. in the mountains.)

1364 Mesosphaerum verticillatum (Jacq.) Kuntze. (*)

Erect, 4-5 ft. Observed only in one place, damp forest 15 miles East of Calavasa, about 500 ft. Sept. 30 Flower white. 2 specimens and specimens for Carnegie and N.Y.

1365 Mesosphaerum suaveolens (L.) Kuntze (=561)

Erect, branching, 4-6 ft. Nov. 1 Flower rosy:purplish. Full set, some not very good.

1366 Mesosphaerum suaveolens (L.) Kuntze. (=561)

Forest near Masinga, Vieja, 500 ft. Nov. 11 Flower blue. Rare. No specimens except for N.Y. and Carnegie.

1367 Mesosphaerum polyptachyum (H.B.K.) Rusby

Erect, branching, 3-6 ft. Observed only in open, grassy ridges near Minca, about 2200 ft. Collected Nov. 23. Full set, good.

1368 Mesosphaerum mutabile

~~1368 Mesosphaerum mutabile (Rich) Kuntze =1374~~

~~Erect 3-4 ft. Diffuse, sp~~
1368 Erect or somewhat diffuse, 3-4 ft. Flower purplish. Roadsides and old clearings near Cacagualito 1500 ft. Dec. 10

1369 Loxelia lanulosa G. Don.

Erect, to 3 ft. Flowers light, rosy purple. Common locally on open lands and in clearings, 5000-25000 ft. Flowers in Dec. The free-flowering specimen with small leaves, is from Onaca, 2500 ft.; the other near Masinga Vieja, 1000 ft. both collected Dec. 22

Full set, some not very good.

1370 (not named) Erect, to 4-5 ft. Local clearings or open forest, 800-2500 ft. Flowers Sept.-Dec. ~~There is some confusion in my notes regarding the color of the flowers, but they appear to be light blue or purplish.~~ The specimen is from a clearing near Jiracasaca, 2500 ft. Dec. 22.

Full set.

(Later note) flowers deep blue; same locality.

1371 (var. of 562 ?) (not named)

Near Jiracasaca, 2500 ft. damp clearing in a ravine. The color of the flowers was not noted.

1372 Scutellaria purpurascens Sw.

Spreading, ascending to 1 ft. Flower crimson. Rare on the open rocky shores of a stream at Minca, 2000 ft. Collected Aug. 6

No specimens except for N.Y. and Carnegie. No dissecting material.

1373 Mesosphaerum polyanthum (Poit) Kuntze

Erect, to 5 or 6 ft. Flower blue. Local on the Minca Road, in dry forest and thickets or other places near streams, 500-1200 ft. Nov. 22

(Later, flower purplish-blue.)

Full set.

1374 Mesosphaerum mutabilen (Rich) Kuntze (=1368)

Erect, to 4 or 5 ft. Flower light blue. Open places in dry forest, 6-8 miles south of Mamatoca, about 500 ft. Nov. 22

Full set.

1375 Marsypianthes hyptoides (Vahl) of No. 563? spreading, the ends of the branches ascending, 1-2 ft. Flower blue. Clearing near Londa, 2500 ft. Nov. 15. Not observed elsewhere. The leaves are hardly at all viscid and the whole plant has a very different appearance from No. 563. Full set.

1376 Mesosphaerum rugosum (L.) Pollard

Erect to 4 ft. with few or no branches. Flower white. Occasional on open grass lands near Onaca, Cacagualito and Jordan, 500-2800 ft.

Specimens collected near Jordan, 500 ft. Nov. 15.

Full set, fine and very full-2 or 3

1377 Mesosphaerum capitatum (L.) Kuntze

Erect, more or less branching, 2-4 ft. Occasional in clearings and thickets, below 3000 ft. Flowers Oct.-Dec. white. Specimen is from Cacagualito, 1500 ft. Nov. 17

Full set.

1378 Mesosphaerum brevipes (Poit) Kuntze.

Rare on open, grass lands, Agua Dulce Road, 1000-1500 ft. Dec. 6 Grows to 2 ft. 20 specimens.

Corrections

In 1382 + 83 I misspelled *Centropogon*

in 1387 I wrote "~~not named~~" the species is
1387 *Bastilleja irasuenensis* Cerot.

Specimen from open land, border of forest, hills 3 miles N. E. of Masinga, 1000 ft. Nov. 3 The species is rare. Flower white.

1379 Mesosphaerium recurvatum (Poiit) Kuntze (=1489)

Erect, branching, to 3 ft. but flowers when small. Observed only above Onaca, about 3000 ft. Open places in dry forest. Dec. 15. Flowers white. Common at Onaca and Las Nubes. Full set.

1380. (not named)

A shrub, 6-8 ft. Common locally in damp mountain forest, generally in boggly ground, Sierra del Libano, about 6000 ft. Also grows abundantly in a clearing on the mountain-side. Flowers Jan. Apr. The flowers vary in color from vivid scarlet, the calyx corolla color, to rather dull and pale red with the calyx greenish. Specimens collected in March.

A fine set

1381 not named)

A shrub, to 5 ft. Observed only at Las Nubes, 4500 ft. Open place near a stream. Dec. 15. Flowers white

A fine, full set.

1382 Dentropogon Surinamensis Presl.

Herbaceous, erect, 2 ft. Rare on open lands, 1500-3000 ft. Specimens are from Campo Alegre ~~4-500~~ ft. Nov. 20. Flower dull red. 25 specimens.

Alegre

1383 Centropogon affinis Mart. et Gal.

Erect, branching, 3-4 ft. Rare in open places, 4500-6000 ft. Specimen is from the Sierra del Libano, about 5500 ft. Jan. 19. I have flowers collected at Las Nubes, 4500 ft. Dec. 15. Corolla red, not dull.

13 specimens, scant.

1384 Siphocampylus probably n.sp. (~~1489/1490~~) (labels not sent)

Somewhat diffuse, with erect branches, to 4 or 5 ft. Common on open lands, Sierra del Libano and San Lorenzo Ridge, 6000-7500 ft. Flowers observed Jan.-Feb. Corolla dull red, white within. Specimens were collected Jan. 25 at about 6500 ft.

Full set, good.

1385 (not named)

Erect, 4-5 ft. Corolla orange red. Damp clearings, Sierra del Libano, 6000 ft. Jan. 22.

1386. Shrubby, 4-5 ft. (not named)

Thicket near a stream, damp valleys, Las Nubes, 4500 ft. Dec. 18
Flower red.

Full set, good.

1386 (not named)

Specimen collected in a damp ravine above Onaca, 3500 ft. Aug. 18. This species is a shrub or tree, sometimes 15-20 ft. high, and occurs locally in ravines from 3500-5000 ft.

1387 (not named) Bastilleja Iraacuensis, Oerit

Shrubby (or suffruticose) somewhat diffuse, to 2 ft. Corolla dull red, leafy only at the ends of the branches, ~~x~~ ~~xxx~~ Observed only close to the top of the San Lorenzo Ridge, where it grows only on the southern slope, at about 7500 ft. Collected Jan. 25 and the plant was going out of flower at the end of Feb.

10 specimens, scant.

1388 (not named)
Shrubby or suffruticose, more or less diffuse. 3 ft. Flower lilac-red.
Occasional in damp clearings and open places near streams, about 4500 ft. Flowers Dec.-March. Specimen is from Las Nubes, 4500 ft. Dec. 5.
Full set, good.

~~1388x~~ 1389 Odontonema bracteolata N. ab/ &
Shrubby, simple or with few branches, 1.5 or 6 ft.; the large-branches-specimens are sometimes diffuse. Local and rather rare in forest or shady places below 3000 ft. Flowers more or less throughout the year, scarlet; specimens are from a ravine 7 miles north of Londa, about 250 ft. Nov. 1, 21 specimens, fairly good.

1390 (not named)
Shrub, 2-4 ft. with few branches, and often drooping or procumbent; air-roots are frequent. Flower scarlet. Locally common in damp mountain forest, about 5000 ft. The specimens were collected above Las Nubes, Dec. 17.
Full set.

~~1391x (xxxxxxx3292) xChiococca parvifolia Wullsch. (same as 390?)~~

1391 Chiococca parvifolia Wullsch. (same as 390 ?)
Cacagualito, 1500 ft. May. No specimens except for N.Y. and Carnegie.

1392 Lygistum calycosum (Griseb.) Kuntze
Twining, 10-12 ft. Rare in thickets and on edge of forest, 1500-4500 ft. The specimen is from Campo Alegre, about 1800 ft. Sept. 20; observed on Mt. Cuaco, 4500 ft. Sept. 27. Flower scarlet. 12 specimens.

1393 Manettia Smithii Sprague sp. nov. (In later letter Busby says "this is new species.")
Twining, 10-15 ft. Flower scarlet. Observed only at Campo Alegre, 1500 ft. thickets, edge of forest, Sept. 22
Full set, good & full.

I have flowering specimens from the same locality, collected Feb. 1

1394 (not named)
Rare on trees, damp forest, 5500-6500 ft. Specimen is from the Sierra del Libano, 5500 ft. March 7. Grows to 2 ft. Flower scarlet.
Fl. is about 1 1/2 inch long & 1 1/2 inch broad. This specimen from Sierra de Onaca, 6500 ft. No specimens except for N.Y.

1395 Columnnea aureo-nitens Hook.
Herbaceous, simple ascending to 2 ft. Growing on a log over a stream in clearing, Las Nubes, 4500 ft. Dec. 17. Flower red.
7 specimens. No dissecting material.

1396 (var. of 1395?) Columnnea aureo-nitens ^{Hook.} Hook.
Trailing, simple ends ascending 3-4 ft. Mountain forest above Valparaiso, 500 ft. on rocks. Apr. 7. Flower red. 5 specimens.

1397 not named
Erect, to 2 ft. calyx red, Las Nubes, 4500 ft. thicket near a stream, growing on the ground. Only one root seen. 7 specimens.

1398 Cermeria stachyifolia Benth.

--157--

Erect, 1-2½ ft. Rare and local on open grassy ridges, about 2000 ft. Flowers June-July, varying in color from deep pink to scarlet. The flowering specimen is from near Minca, 2000 ft. June 9; the one in fruit from near Cacagualito, about 1800 ft. Aug. 7. 23 specimens.

1399 A variety with yellow flowers, from Don Amo, 1600 ft. June 18. I found ~~red-flowered~~ a few specimens of the red-flowered variety, as low as 800 ft.

1399 (not named)

A shrub, 3-4 ft. Rare in damp and generally shady ground, 2000-5000 ft. Flowers observed Jan.-June. Specimen was collected below Valparaiso, about 4000 ft. March 21. Corolla orange red. 14 specimens.

1400 (not named) Erect, 3 ft. Rare in damp clearings, Sierra del Libano, 6000 ft. Flowers observed Jan.-May. Corolla purplish; calyx red. Specimen collected Jan. 22

No specimens except a rather poor one (with flowers) for N.Y.

nos. 1037 - 1200

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Nos. 1201 - 1400

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Rec. 13 May, 1922.

H. H. Smith
Pl. Columbia - Data copied by Mrs. S.

2763	2630	2660	157-	781-	2626	2120	2107
2635	2657	2662	135-	431-	1657	501-	2141
2631	2658	2659	134-	798-	1646	196-	2140
2335	2770	1858	2472	901-	1621	201-	2147
2263	2316	2577	2474	1763	1667	193-	2150
2264	2341	1175-	2477	1762	1659	190-	2152
2333	2240	1177-	2479	1764	1679	197-	2127
2271	2759	1147-	2530	2104	1677	191-	2127
2762	"	1150-	2531	2103	1680	166-	2126
2477	2478	2473	2748	796-	1682	182-	1627
2426	2639	2260	2745	1701	1903	179-	2528
2633	12-	2119	2747	1765	1920	174-	
2299	9-	2158	2749	443-	1620	183-	
2301	7-	2157	2750	1760	1674	185-	
2302	10-	2156	141-	1775	1676	187-	
2557	5-	2134	142-	820	1683	186-	
2297	2-	144-	140	882	1701	181-	
2294	1857	145-	139-	880-	2089	188-	
221-	1844	110-	138-	883-	2094	187-	
228-	1846	115-	108	1272	2072	177-	
237-	1843	114-	137-	1538	2296	194-	
244-	1837	116-	136-	1108-	2411	195-	
302-	1841	117-	109-	1277	1160-	213-	
2201	1842	118-	130-	49	2644	207-	
2383	763-	121-	131-	928	2018	209-	
2386	1247	122-	132-	286-	2621	210-	
2577		124-	2571	206	736-	212-	
2578		125-	133-	2030	733-	214-	
2551	1185-	126-	151-	37-	487-	2159	
375-	1182-	146-	2535	2014	2157	2162	
316-	1161-	148-	2536	2071	2184	2163	
297-	1177	147-	2573	2071	2184	2165	
2606	1184-	152-	2570	1880	2187	2166	
675-	1182-	155-	2569	836-	2185	2168	
2033	1184-	157-	2572	2098	2178	2167	
1754	1182-	161-	2574	2418	2174	2170	
2355	1170-	163-	2574	2510	2171	2175	
	1173-	165-	2576	184	2160	2176	
	1482	164-	2575	2570	2121	2184	
	840-	164-	2744	1348	2123	2183	
	1121-	2133	2753	1348	2123	2181	
	1178-	2135		1348	2122	2180	
		153-				2182	

H. H. Smith Columbia pl.

Bundle 50
 2758
 1769
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 ✓ 1768
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 ✓ 845-
 410-
 ✓ 800-
 799-
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 Bundle 51
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Bundle 52

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 ✓ 583-
 2107
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 ✓ 1380-
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 473-
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Bundle 53
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 314-
 313-
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 ✓ 1872
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See folios
 Taken out by S. H.

600 p.

dequere

345

10

571

H. H. Smith - Colombia - pl.

Bundle 54

1116-	2257
959-	2255
2223	2222
2231	2206
1129-	2254
1005-	2217
1010-	
1018-	2598
1020-	2596
1022-	2593
1001-	2591
1002-	2590
1003-	2464
943-	2466
948-	2597
1006-	2449
2688	2450
2522	2456
2700	2461
2682	2462
2681	2595
2580	2592
2563	1115
2674	1099
967-	1087
971-	1088
2677	1107
2459	2136
2679	2441
2650	2436
2678	2443
985-	2587
986-	2586
1004-	2588
2689	2589
1036-	2448
1026-	2468
1028-	2567
1027-	2245
2698	2243
2690	2242
1118-	2238
1106-	2699
115-	2601
	2655
	2207
	2218

✓1433
✓1919
✓2393
✓ 77-
91-
357
✓358-
✓351-
360-
✓424-
✓429-
✓371-
827-
✓1422
✓1428

Bundle 55

1598 is a *Cucurta* label says *Pasiflora*

145
345
292
782

22
29
69
120

List of Smith, Herbert H. Colombia grasses sent
to J. Cosmo Melvill Esq. Meole Brace Hall, Shrewsbury, England.

2121. *Cymbopogon bracteatus* (Willd.) Hitchc.
2122. *Sorghastrum stipoides* (H.B.K.) Nash
2123. *Andropogon bicornis* L.
2133. *Ichnanthus pallens* (Sw.) Munro
2134. " *candicans* Doell
2135. " *tenuis* (Presl) Hitchc. & Chase
2139. *Ischaemum latifolium* (Spr.) Kunth
2142-----
2144-----
2156. *Paspalum nutans* Lam.
2157. " *decumbens* Swartz
2158. " *multicaule* Poir.
2159. " *distichum* L.
2171. *Clyra latifolia* L.
2178. *Arundinella deppeana* Nees
2190. *Panicum polygonatum* Schrad.
2258-----
2260-----
2472. *Cymbopogon bracteatus* (Willd.) Hitchc.
2473. *Eriochrysis cayanensis* Beauv.
2499. *Chaetochloa vulpiseta* (Lam.) Hitchc. & Chase
2530. *Paspalum microstachyum* Presl
2532. *Pennisetum setosum* (Sw.) Rich
2535. *Leptothrium rigidum* Kunth

2-Herbert H. Smith.

2536. *Pappophorum alopecuroideum* Vahl
2569. *Ichnanthus candicans* Doell
2570. *Panicum pyrularium* Hitchc. & Chase
2571. " *frondescens* Meyer
2572. *Ichnanthus tenuis* (Presl) Hitchc. & Chase
2573. *Oplismenus burmanni* (Retz.) Beauv.
2574. *Sporobolus argutus* (Nees) Kunth
2575. *Arundinella confinis* (Schult.) Hitchc. & Chase
2576. *Aristida recurvata* H.B.K.
2744. *Paspalum conjugatum* Berg.
2745. *Tripsacum laxum* Nash
2746.-----
2747. *Panicum polygonatum* Schrad.
2748. *Hymenachne auriculata* (Willd.) Chase
2749. *Arundinella berteroniana* (Schult.) Hitchc. & Chase
2750. *Paspalum repens* Berg.
2751.----
2752.----
2753. *Panicum reptans* L.
108. *Echinochloa polystachya* (H.B.K.) Hitchc.
109. *Sporobolus indicus* (L.) R. Br.
110. *Eragrostis ciliaris* laxa Kuntze
111. *Eragrostis glomerata* (Walt.) L. H. Dewey
114. *Sporobolus argutus* (Nees) Kunth
115. *Chaetochloa sulcata* (Aubl.) Hitchc.
116. *Oryza latifolia* Desv.
117. *Lasiacis procerima* (Hack.) Hitchc.

3--Herbert H. Smith.

119. *Bouteloua americana* (L.) Scribn.
120. " "
121. *Pereilema crinitum* Presl
122. *Pentarraphis scabra* H.B.K.
124. *Paspalum melanospermum* Desv.
126. *Paspalum virgatum* L.
130. *Andropogon malacostachyus* Presl
131. *Penicum fasciculatum* Swartz.
133. *Hymenachne amplexicaulis* (Rudge) Nees
134. *Aristida scabra* (H.B.K.) Kunth
135. *Muhlenbergia ciliata* (H.B.K.) Kunth
136. *Aristida setifolia* H.B.K.
137. *Bouteloua filiformis* (Fourn.) Griff.
138. *Aristida capillacea* Lam.
139. *Sorghastrum nutans* (L.) Nash
140. *Pentarraphis scabra* H.B.K.
141. *Aristida scabra* (H.B.K.) Kunth
142. *Paspalum stellatum* Humb. & Bonpl.
143. *Paspalum heterotrichon* Trin.
144. *Ischaemum latifolium* (Spr.) Kunth
145. *Chloris polydactyla* (L.) Swartz
146. *Andropogon ischaemum* L.
- 147----
148. *Arthrostylidium prestoei* Munro
149. *Eriochloa montevidensis* Griseb.
152. *Setariopsis auriculata* (Fourn.) Scribn.

4--Herbert H. Smith.

- 153. *Cenchrus pilosus* H.B.K.
- 154. *Chaetochloa setosa*. There may be a mixture of labels here.
The label reads *Cyperus digitatus*.
- 155. *Chaetochloa setosa* (Sw.) Scribn.
- 156. *Pennisetum setosum* (Sw.) Rich.
- 157. *Oplismenus burmanni* (Retz.) Beauv.
- 159. *Cenchrus insularis* Scribn.
- 161. *Paspalum saccharoides* Nees
- 163. *Panicum strigosum* Muhl.
- 164. " *hirsutum* Swartz.
- 165. *Panicum Ghiesbreghtii* Fourn.
- 190. *Cymbopogon ruprechtii* (Hack.) Rendle
- 193. *Heteropogon melanocarpus* (Ell.) Benth.
- 196. *Andropogon condensatus* H.B.K.
- 200. not found.
- 201. *Gynerium sagittatum* (Aubl.) Beauv.
- 202. *Panicum laxum* Sw.
- 204. " "
- 206. *Panicum polygonatum* Schrad.
- 209. *Panicum molle* Sw.
- 2119. *Andropogon angustatus* Steud.

Field data for H. A. Smith's Columbian species of
Eupatorium and Mikania.

326 *Eupatorium inulaefolium* A.B.K.

Upright, branching towards the top. 5-6 ft.
Common locally 2000-3000 ft. on campo
land especially near the borders of forest.
Flowers in Sept. (Specimen is from Giracassoa
2500 ft. Sept. 29. Flowers pure white.

503 *Eupatorium resinoides* HBK.

Occasional in dry forests and thickets, 1000-
5000 ft. Flowers May-Dec. and probably
through the year. (The larger specimen is
from Las Tubas 4500 ft. Dec. 16; the other
from near Anaca 2000 ft., Dec. 20.

Erect or more or less diffuse, with long
branches 3-4 ft.

505 *Eupatorium wronneri* Robinson

Occasional in thickets and dry forest below
3000 ft. Grows to 4 ft. with long branches.

Flowers purplish - flowers May-Dec.

506. *Eupatorium odoratum* L.

Shrubby, erect 4-6 ft.; when growing among bushes it
sometimes sends out long, diffuse branches. Common
in thickets and edge of campo below 1000 ft. The
flowers are whitish, more or less tinged with blue,
but always lighter than no 636. Flowers in latter
part of December. (Specimen from Borda)

522 *Eupatorium microstemon* Cass. 2

A common weed below 4000 ft. in clearings, thickets, damp campo ground etc. Bonda, Oraca, Cacagualito etc. July-Dec. (The smaller specimen is from Bonda July; the larger from Oraca 2500 ft. Dec.) Grows to 2 or 2½ ft.

525 *Eupatorium celtidifolium* Lam. var. *hirtellum* Robinson
✓ A tree 10-20 ft. Locally common in dry forest near Bonda (below 500 ft.) Flowers at end of Sept. and in June.

533. *Eupatorium ivaeifolium* L.
1000-3000 ft. near Oraca. Flowers Aug.-Sept. Bright purplish-blue. Shrub, upright 3-4 ft.
✓ Locally common, generally in ravines, campo, edge of forest, or on open campo.

607 *Eupatorium iresinoides* HBK. var. *globescens* Steetz
A straggling shrub to 4 ft. Rocky hills by the seashore near Playa Brava. Feb. 9.
✓ The plants were going out of bloom and I obtained only a few poor specimens. Flowers pale yellowish.

615 *Eupatorium vidolepis* Robinson
✓ Shrub 4-5 ft. Las Nubes 4500 ft. Observed only in one place, hillside, open land, edge of forest. Dec. 18.

616. *Eupatorium pellium* Klatt.
✓ Shrub 3-5 ft. Campo 2000-3000 ft. Local at Oraca near Mina etc. Specimen from Oraca 2500 ft. Dec. 30.

617 *Eupatorium iracifolium* L.

Variety from open land near Cocagualeto, 1500 ft.

✓ No. 15. I have similar ones from the Agua Dulce Road, 2000 ft., No. 23. Specimen with roots collected near Oraca, 2500 ft. Dec.

621 *Eupatorium Dombeyanum* DC.

Las Nubes, 4500 ft. Dec. 16. Clearing, not common. Erect, 2-3 ft.

~~623 *Eupatorium pycnocephalum* Less.~~

~~Not found~~

625 *Eupatorium trioclinum* Robinson

✓ Upright, 4-5 ft. Occasional in thickets near water at Las Nubes, 4500 ft. Dec. 15-20.

629 *Eupatorium macrophyllum* L.

Common in damp clearings, 1000-5000 ft. at Cocagualeto, Oraca, Las Nubes etc.

Occasional in ravines near sea-level. Upright 4-5 ft. with few branches. Flowers May-Dec. (Specimens from Oraca, Dec.)

~~634, 1986, 2002 *Mikania* species Not found~~

636 *Eupatorium odoratum* L.

Shrubby, more or less diffuse, with long branches. Common on campos and clearing

✓ 1500-5000 ft. at Oraca, Campo Alegre, Las Nubes etc.

Flowers light blue; flowers in Dec. The broad specimen is from a clearing at Las Nubes 4500 ft. Dec. 16.

660 *Eupatorium Chrysostictum* Robinson
 Specimen from Las Nubes, 4500 ft. Feb. 7. This
 species is always scandent. (Loosely twining
 or supported by surrounding shrubbery) and
 grows to 10 or 12 ft. It is common in
 thickets generally near streams, 4000-6000
 ft. Flowers principally in Jan. white or pale
 purplish.

669 *Eupatorium morifolium* Mill.
 Shrub 6-8 ft. Occasional in forest below
 1500 ft. flowering in Dec. Observed near
 Masuiga, at Masuiga Vieja, on road to
 Minca etc. Specimen is from woods on road
 to Anaca 1000 ft. Dec. 20.

920 *Eupatorium vitalbae* DC.
 A loosely twining vine, to 10 or 12 ft.
 Observed only on the road to Agua Dulce,
 about 1000 ft. Open damp places in forest
 generally near stream. Jan. 11.

1990 *Eupatorium diaphanophlebium* Robinson
 Vine or vine-like to 8 ft. Thicket. Las
 Nubes, 4500 ft. Feb. 6. I have only a
 few poor specimens.

1993 *Eupatorium magdalenense* Robinson

5.

Erect or somewhat straggling, 1-3 ft.

Moderately common on open ridges, Sierra del Libano, 5500-6500 ft. Flowers Jan.-March, white. Specimens were collected Jan. 25.

1994 *Eupatorium pichinense* H.B.K.

Erect or ascending, 2-2½ ft. Open places, clearings and ridges, Sierra del Libano about 6000 ft; rather rare. Flowers Jan.-Feb., white. Specimens were collected in a clearing. Jan 21.

623 *Eupatorium pycnocephalum* Less.

Somewhat diffuse, 2-3½ ft. Common at Oraca (2500 ft.) in clearings and on campo land; also observed at Giracasaca, Cacagualito etc. Occasional near sea-level, (Bonda etc.) in damp places near water. Flowers in Dec. rosy purple.

(Specimens are from Oraca)

634 Mikania clematiflora Rusby sp. nov.
Twining 15 ft. Thickets near stream, Las Nubes
4500 ft. Dec. 16. Rare.

1986 Mikania ^{globosa} subpeltata Rusby sp. nov.
A vine to 20 ft. Forest. Minca road about
1200 ft. Jan 17. Only one seen. Flower white.

5002 Mikania flabellata Rusby sp. nov.
A twining vine to 15 ft. Moderately
common in clearings, Sierra del Libano,
6000 ft. Flowers Jan-Feb. white. Specimens
were collected Jan. 21.

H. H. Smith, Colombia

1977. *Senecio* S. *sanctae-martae* Greenman
1989. S. *decompositus* Schz. Bip.
2000. S. *scortifolius* Greenman, sp. nov.

det. M. G.

H. H. Smith 2404, 92. *Sickingia cordifolia* Hook. f. (det. P. C. Standley)

H. H. Smith

487. *Abutilon incanum* Sweet?

(det. Ulbrich)

Smith 1837 *Miconia punctata* (Desr) D. Don.

Smith 1841 *Miconia pulvinata* Gleason, n.sp.

Smith 1846 *Miconia Smithii* Cogn. n.sp.

Rubus

H.H. Smith (Colombia)

1339. *R. sellowii* C. & S., rather than *R. bogotensis*

2512. *R. floribundus* H.B.K., rather than *R. bogotensis*

PALMS OF CURRENT SOUTH AMERICAN COLLECTIONS

Identified by M. Burret, Berlin Botanisches Museum, 1932.

1846 *Miconia Smithii* Cogn. n.sp.

(U.S.N. No. 7119132)

H. H. Smith, Colombia.

2340. *Geonoma platybothros* Burret

2477. *Chamae^dorea pinnatifrons* (Jacq.) Oerst. (cf.)

2639. *Scheelea butyracea* (L. f.) Karst.

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181 ✓	156 ✓	299 ✓	396 ✓	443 ✓	502 ✓	695 ✓	763 ✓	883 ✓	901 ✓	1041 ✓	1188 ✓	1297 ✓	1342 ✓	1482 ✓	1538 ✓	1627 ✓	1754 ✓	1847 ✓	2183	2639	2551 ✓	2658 ✓	2757 ✓	
186 ✓	133 ✓	244 ✓	395 ✓	431 ✓	561 ✓	616 ✓	796 ✓	880 ✓	928 ✓	1014 ✓	1150 ✓	1272 ✓		1492 ✓	1551 ✓	1683 ✓	1775 ✓	1842 ✓	2162 ✓	2478 ✓	2578 ✓	2657 ✓	2770 ✓	
187 ✓	132 ✓	237 ✓		487 ✓	500 ✓	634 ✓	798 ✓	882 ✓	945 ✓	1016 ✓	1144 ✓				1595 ✓	1676 ✓	1766 ✓	1841 ✓	2103 ✓	2340 ✓	2577 ✓	2630 ✓	2763 ✓	
185 ✓	131 ✓	228 ✓		402 ✓	593 ✓	648 ✓	781 ✓	820 ✓	984 ✓	1009 ✓	1177 ✓				1552 ✓	1674 ✓	1765 ✓	1837 ✓	2104 ✓	2341 ✓	2537 ✓	2639 ✓	2753 ✓	
183 ✓	130 ✓	221 ✓		403 ✓	524 ✓	665 ✓	781 ✓	840 ✓	984 ✓	1057 ✓	1175 ✓				1544 ✓	1620 ✓	1701 ✓	1843 ✓	2104 ✓	2316 ✓	2575 ✓	2606 ✓	2744 ✓	
174 ✓	109 ✓	214 ✓		434 ✓	528 ✓	660 ✓	733 ✓	836 ✓	907 ✓	1037 ✓	1158 ✓				1554 ✓	1682 ✓	1764 ✓	1846 ✓	2135 ✓	2355 ✓	2576 ✓	2633 ✓	2750 ✓	
179 ✓	136 ✓	212 ✓		421 ✓	536 ✓	677 ✓	736 ✓	897 ✓	911 ✓	1046 ✓	1170 ✓				1558 ✓	1680 ✓	1764 ✓	1846 ✓	2133 ✓	2386 ✓	2574 ✓	2631 ✓	2750 ✓	
182 ✓	137 ✓	210 ✓		445 ✓	553 ✓	676 ✓	787 ✓	800 ✓		1040 ✓	1171 ✓				1553 ✓	1679 ✓	1762 ✓	1846 ✓	2134 ✓	2383 ✓	2572 ✓	2635 ✓	2749 ✓	
166 ✓	168 ✓	209 ✓		410 ✓	594 ✓	661 ✓	776 ✓	845 ✓		1024 ✓	1193 ✓					1669 ✓	1763 ✓	1850 ✓	2156 ✓	2302 ✓	2569 ✓	2659 ✓	2747 ✓	
191 ✓	138 ✓	207 ✓		432 ✓	505 ✓		799 ✓	809 ✓		1023 ✓	1190 ✓					1667 ✓	1737 ✓	1884 ✓	2157 ✓	2301 ✓	2570 ✓	2662 ✓	2745 ✓	
197 ✓	138 ✓	207 ✓		401 ✓	511 ✓			860 ✓			1182 ✓					1621 ✓	1735 ✓	1880 ✓	2158 ✓	2426 ✓	2573 ✓	2660 ✓	2748 ✓	
190 ✓	139 ✓	213 ✓			516 ✓			859 ✓			1184 ✓					1646 ✓	1702 ✓	1887 ✓	2126 ✓	2477 ✓	2573 ✓	2664 ✓	2743 ✓	
193 ✓	140 ✓	201 ✓			518 ✓			866 ✓			1179 ✓					1659 ✓	1719 ✓	1897 ✓	2127 ✓	2333 ✓	2536 ✓	2626 ✓	2758 ✓	
196 ✓	142 ✓	266 ✓			517 ✓			887 ✓			1181 ✓					1648 ✓	1740 ✓	1893 ✓	2129 ✓	2335 ✓	2535 ✓	2670 ✓	2758 ✓	
	141 ✓				525 ✓			888 ✓			1180 ✓					1648 ✓	1746 ✓	1895 ✓	2201 ✓	2499 ✓	2571 ✓	2671 ✓	2738 ✓	
	134 ✓							893 ✓			1186 ✓					1678 ✓	1759 ✓	1896 ✓	2294 ✓	2474 ✓	2531 ✓	2627 ✓		
	135 ✓							815 ✓			1160 ✓						1759 ✓	1897 ✓	1894 ✓	2297 ✓	2472 ✓	2530 ✓	2610 ✓	
	157 ✓																1769 ✓	1894 ✓	1894 ✓	2299 ✓	2473 ✓	2508 ✓	2609 ✓	
	153 ✓																1769 ✓	1895 ✓	1894 ✓	2271 ✓	2411 ✓	2506 ✓	2636 ✓	
	164 ✓																1727 ✓	1895 ✓	1894 ✓	2269 ✓	2418 ✓	2510 ✓	2655 ✓	
	165 ✓																1773 ✓	1895 ✓	1894 ✓	2263 ✓	2431 ✓	2564 ✓	2654 ✓	
	163 ✓																	1896 ✓	1894 ✓	2260 ✓	2475 ✓	2524 ✓	2638 ✓	
	161 ✓																	1894 ✓	1894 ✓	2296 ✓		2524 ✓	2638 ✓	
	159 ✓																		2215 ✓				2634 ✓	2619 ✓
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	189 ✓																							
	188 ✓																							

Numbers of H. B. Smith's Columbian plants
without labels in Gray Herbarium
Mar. 28, 1917.

2159 ✓	2152 ✓	2033 ✓	
2120 ✓	2150 ✓	2021 ✓	1901 ✓
2122 ✓	2149 ✓	2018 ✓	1900 ✓
2123 ✓	2140 ✓	20922 ✓	1903 ✓
2121 ✓	2141 ✓	2094 ✓	1915 ✓
2160 ✓	2189 ✓	2089 ✓	1927 ✓
2171 ✓	2182 ✓	2064 ✓	1944 ✓
2174 ✓	2186 ✓	2030 ✓	1945 ✓
2178 ✓	2130 ✓	2066 ✓	1975 ✓
2125 ✓	2181 ✓	2043 ✓	1977 ✓
2187 ✓	2183 ✓	2088 ✓	1976 ✓
2188 ✓	2184 ✓	2014 ✓	1981 ✓
2139 ✓	2176 ✓	2013 ✓	1980 ✓
2101 ✓	2175 ✓	2002 ✓	1982 ✓
	2170 ✓	2001 ✓	1993 ✓
	2169 ✓		1999 ✓
	2168 ✓		1986 ✓
	2166 ✓		1989 ✓
	2165 ✓		1997 ✓
	2163 ✓		1990 ✓
	2162 ✓		1947 ✓