A BOTANICAL TOUR IN THE SOUTH LUSHAI HILLS.

By A. T. GAGE, M.A., M.B., B.Sc., I.M.S.

THE following is an account of a short botanical excursion made by the writer in the spring of 1899 to a portion of the South Lushai Hills in accordance with instructions from the Director of the Botanical Survey of India.

The writer left Calcutta on the evening of the 15th March 1800 and arrived at Chittagong on the morning of the 17th, the journey being accomplished partly by rail and partly by river steamer down the combined Ganges and Bramhaputra river. The route then lay in a north-easterly direction up the Karnaphuli river, which flows into the Bay of Bengal at Chittagong, as far as Demagiri; thence directly eastwards across the Lushai ranges to Fort Lungleh. Chittagong a dug-out manned by three men was engaged to proceed up stream as far as Rangamatti, and a week's provisions were laid in. Late on the evening of the 18th March, the writer accompanied by two servants started on the journey up the river. The boatmen kept to their work the greater part of the night and the next day. halting for meals and a mid-day rest. The night of the 19th was spent camped on the river bank. An early start was made next morning, and Rangamatti, the first 'station' after Chittagong, was reached that afternoon. Rangamatti is sixty-five miles by river from Chittagong, and is situated at an elevation of about 100 feet in a narrow loop of the river, where it first bends to the south-east and then abruptly to the north-west. The station is in the Bengal Presidency, and is a small clean-looking village with a good dak bungalow. A detachment of Ghurka police are stationed here. assistant commissioner and a deputy magistrate are the only European residents.

The river here runs between rather steep banks and meanders through a wide, flat, somewhat sparsely wooded vale. Coming up towards Rangamatti, cultivated patches line the river banks here and there, bearing plantains, melons, papayas, etc.

The night of the 20th was spent in the Rangamatti dak bunga. low. Through the good offices of the assistant commissioner two

dug-outs were obtained, in place of the one which had done the journey from Chittagong whither it returned.

Early on the morning of the 21st a fresh start was made, and rowing kept up till nightfall, when camp was pitched. Next day Barkhal was reached in the asternoon. The latter part of the journey to Barkhal was difficult and tedious from the dug-out constantly getting aground on shoals or the flat rocks in the river bed.

At Barkhal itself there are nearly two miles of impassable rapids the river here flowing in a gorge, as the name Barkhal implies, with very steep and thickly wooded banks. To get over the difficulty caused by the presence of the rapids the Government has constructed on the north bank of the river a single trolly line of rail running from the foot to the head of the rapids, where the line and the jungle clearing alike cease. The trollies are propelled by Sonthal coolies.

With some difficulty two fresh dug-outs were secured, to take the place of the two from Rangamatti. Accordingly on the morning of the 23rd March the last stage of the river journey was begun, and that night camp was pitched just above the rapids of Utan Chatra, through which the dug-out was hauled by main force.

Next day the 24th, after surmounting one more set of rapids Demagiri was reached and the river journey ended. Demagiri is about fifty-six miles from Rangamatti, that is, about 120 miles from Chittagong by river. Between Barkhal and Demagiri is the boundary between Bengal and Assam.

The scenery for the first twenty or thirty miles up the river differed in no wise from the ordinary plains scenery.

As one journeyed higher up, however, the banks became steeper and more thickly wooded, with multitudinous species of trees and shrubs. Collections were made at each of the halting places so far as time permitted. These, however, are not included in the present report, as the localities do not come within the South Lushai Hills.

At Demagiri the writer met with the subdivisional officer for Lungleh, who was returning thither after having been out on tour, and in his company the remainder of the journey was made.

The four marches that intervened between Demagiri and Fort Lungleh were as follows:—

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      25th March
      . Demagiri
      to Tuichong
      8 miles.

      26th
      . Tuichong
      Lungsin
      10½
      "

      27th
      . Lungsin
      "Ridge camp 13
      "

      28th
      . Ridge camp "Fort Lungleh 10½
      "
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These were four very fatiguing marches in the hot sun and uphill the whole way practically, and during the last three the writer suffered from slight fever, and on reaching Fort Lungleh was obliged to lay up for a day or two. So practically nothing was collected on the land part of the journey to Lungleh.

The writer was most hospitably received at Fort Lungleh by Mr. C. B. Drake-Brockman, the Subdivisional officer, and Lieut. Bailey, I.S.C., assistant commandant, the only Europeans there. The writer then stayed at Fort Lungleh up to the 19th April, when circumstances compelled his return to Calcutta. The actual collecting period was thus reduced to about three weeks, of which one week was lost partly owing to very bad weather and a recurrence of the writer's fever.

Had it been possible for the excursion to have taken place earlier in the year, and had more time been available doubtless a better collection would have been got.

The return journey was unfortunate from a weather point of view. The journey from Lungsin to Tuichong was made amid torrents of rain, quite precluding any attempt at collecting. The river journey from Demagiri to Barkhal was also done under the same wretched circumstances, in addition the dug-out running against a rock and partially capsizing in shooting the Utan Chatra rapids, so that what the rain did not wet the river effectually did.

Next day the 24th April was spent at Barkhal, where the rain poured steadily down the whole day, in drying clothes and paper.

Rangamatti was reached on the 25th April, Chittagong on the 28th, and Calcutta on the 30th April.

Special thanks are due to Major Shakespeare, C.I.E., Superintendent of the Lushai Hills, for allowing access to that region and for giving facilities for obtaining coolies and supplies.

The South Lushai Hills are formed of several parallel ranges running roughly north and south between latitude 22° and 24° N and longitude 32° to 94° East. The altitude varies from about 2,000 to 4,000 feet, with a few isolated peaks reaching 7,000 feet. The valleys are very deep with exceedingly steep slopes, covered with a dense impenetrable jungle of climbing palms, creepers, bamboos, etc., amongst which tower lofty trees, the most conspicuous of which are huge Dipterocarps.

The general features of the flora are practically those of the adjacent Burmese hills. Epiphytic orchids abound, chiefly species of Dendrobium and form conspicuous masses of colour on the trees. Scitamineous plants and aroids are very common, and the trailing strings of Dioscorea fruits were very frequent. Amongst the commoner trees in addition to the Dipterocarps were Saurauja punduana Wall., Schima Wallichii Choisr, Duabanga sonneratoides Ham,

Gmelina arborea Roxb. Bamboos formed a very conspicuous feature of the jungle but none were found in flower.

Fort Lungleh itself is situated on a ridge at an elevation of 3,500 feet. In the list, when Fort Lungleh is given as the locality of collection, the altitude is not mentioned, but is to be taken as about 3 000 feet. The approximate altitude of other localities is given in most cases.

For much help in identifying the species of the collection generally the writer is specially indebted to Major Prain. The list of orchids is made up to a small extent from specimens collected by the writer, but mostly from living plants collected by Lieut. Bailey for his own study. Examples of each species in Lieut. Bailey's collection were very generously given by him to the writer, who forwarded them to Mr. Pantling of the Government Cinchona Department. The thanks of the writer are due to Mr. Pantling for kindly identifying those that were sent to him.

In the list the number within brackets, when present, after the name of each species is the field number. The sketch map at the end of the note shows the route and the position of Lungleh. For a map showing the relative position of the Lushai Hills to their surroundings the reader is referred to Pottinger and Prain's note on the Botany of the Kachin Hills, No. 11 of the Records, page 310.

Phanerogamia.

DICOTYLEDONES.

Thalamifloræ.

I.—RANUNCULACEÆ.

1. Clematis grewiæflora. D.C. (No. 29).

In fruit.

1

Fort Lungleh.

Distrib. Lower temperate, and Subtropical Himalaya; Kachin hills; Naga hills; Manipur; Burmah.

II.—ANONACEÆ.

2. Goniothalamus sesquipedalis, Hf. & T. (No. 95).

Leaves only.

Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Sikkim to Assam, Khasia hills to Tenasserim.

III.—MENISPERMACEÆ.

3. Pericampylus incanus Miers (No. 58).

In flower.

Fort Lungleh.

Distrib. Kachin hills; Eastern Himalaya; Southern Chira; Indo-China; Malaya.

4. Stephania rotunda Lour. (No. 217).

Fort Lungleh.

Leaves only.

Distrib. Tropical and Temperate Himalaya; Khasia hills; Pegu; South-West India.

5. Lophophyllum bicristatum Griff. (No. 43).

In fruit.

Fort Lungleh.

Distrib. Eastern Himalaya; Khasia hills; Manipur; Burmah.

IV.-CRUCIFERÆ.

6 Nasturtium indicum, D.C. var. bengalensis (No. 215). Between Ridge Camp and Lungsin.

Alt. circa 2,500 feet.

Distrib. of variety. Bengal; Chittagong; Silhet; Khasia Hills; Assam.

V. - CAPPARIDEÆ.

7. Roydsia suaveolens Roxb. (Nos. 41 and 77).

In flower and fruit.

Fort Lungleh.

Distrib Sikkim; Bhotan; Assam; Chittagong and Burmah.

VI.-BIXINEÆ.

8. Gynocardia odorata Roxb. (Nos. 70 and 178).

In fruit.

Fort Lungleh.

Distrib. Sikkim; Khasia hills; Chittagong and Burmah.

9. Hydnocarpus sp. (No. 71).

Fort Lungleh

VII.—PITTOSPOREÆ.

10. Pittosporum floribundum W. & A. (No. 103).

In fruit.

Helio Hill Lungleh. Alt. 3,700 feet.

Distrib. North-Western Himalaya; Sikkim; Khasia Hills; Burmah; South India.

VIII.-GUTTIFERÆ.

11 Garcinia Xanthochymus Hook. f. (No. 205).

In fruit.

Between Tuichong and Demagiri. Alt. circa 1,000 feet.

Distrib Sikkim; Khasia hills; Burmah; South India; Ceylon; Eastern Peninsula; Andamans.

IX.—TERNSTROEMIACEÆ.

12 Saurauja punduana Wall. (No. 51).

In flower.

Fort Lungleh.

Distrib. Sikkim; Bhotan; Khasia hills; Burmah.

13. Schima Wallichii Choisy (No 33).

In flower and fruit.

Fort Lungleh.

Distrib. North-Western Himalaya; Sikkim, Khasia hills; Assam; Chittagong and Burmah.

X.—DIPTEROCARPEÆ.

14. Dipterocarpus turbinatus Gaerin.

Huge trees of which only the fallen young fruits were collected.

XI.-MALVACEÆ.

15. Abutilon polyandrum Schlecht (No. 108).

In fruit.

Fort Lungleh.

Distrib. Tropical Himalaya; South, West, and Central India; Burmah; Java.

16. Urena lobata Linn. var. tomentosa (No. 60).

In fruit.

Fort Lungleh.

Distrib. General in the tropics.

17. Hibiscus pungens Roxb. (No. 157).

In fruit.

Fifteen miles South-East of Fort Lungleh.

Distrib North-Western Himalaya; Nepal; Sikkim; Bhotan; Duphla hills; Naga hills; Khasia hills; Assam; Bengal Burmah.

XII.—STERCULIACEÆ.

18. Sterculia colorata Roxb. (No. 111).

In flower.

Fort Lungleh.

Distrib. India and Indo-China.

19. Buettneria aspera Colebreoke (No. 69).

In fruit.

Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Burmah; Andamans.

20. Buettneria pilosa Roxb. (No. 200).

In fruit.

Between Fort Lungleh and Ridge Camp. Alt. circa 3,000 feet.

Distrib. Kachin hills: Assam; Chittagong and Burmah.

XIII.—TILIACEÆ.

21. Columbia floribunda Wall. (No. 193).

In fruit.

Fort Lungleh.

Distrib. Assam; Burmah.

22. Triumfetta pilosa Roth. (No. 59).

In fruit.

Fort Lungleh.

Distrib. India; Indo-China; China; Malaya; Africa.

Discifloræ.

XIV.-MALPHIGIACEÆ.

23. Hiptage acuminata Wall, var. (No. 146).

In flower and fruit.

A tall climber.

Fort Lungleh.

Distrib. Khasia hills; Naga hills; Manipur; Assam; Burmah

XV.—GERANIACEÆ.

24. Oxalis corniculata Linn. (No. 216).

In fruit.

Fort Lungleh.

Distrib. Cosmopolitan.

XVI — RUTACEÆ.

25. Toddalia aculcata Pers. (Nos. 42 and 102).

In fruit.

Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. India; Indo-China; China; Malaya.

26. Glycosmis pentaphylla Correa. (No. 80).

In flower.

Fort Lungleh.

Distrib, North-Western Himalaya; Sikkim; Khasia hills; Assam; Burmah; Andamans; South and West India; Ceylon; Malaya Peninsula and Archipelago; Philippines; Australia.

27. Micromelum pubescens Bl. (Nos. 20 and 30).

In fruit.

Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Naga hills; Assam; Chittagong and Burmah; Malaya; Ceylon; Java; China.

28. Murray exotica Linn. (No. 183).

In flower.

Fort Lungleh.

Distrib. North-Western Himalaya; Assam; Chittagong and Burmah; Andamans, South-Wæst India; Ceylon; China; Australia; Pacific Islands.

29. Clausena suffruticosa W. & A. (No. 46).

In flower.

Fort Lungleh.

Distrib. Khasia hills; Chittagong and Burmah.

30. Citrus Medica Linn. (No. 65).

In flower and fruit. Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. North-Western Himalaya; Sikkim; Khasia hills;

Garo hills; Kachin hills; Chittagong and Burmah; Western

Ghats; Central India.

XVII.—BURSERACEÆ.

31. Garuga pinnata Roxb. (No. 274).

In fruit.

Fort Lungleh.

Distrib. Throughout India; Assam; Burmah; Malaya; Philippines.

XVIII.—MELIACEÆ.

32 Dysoxylum binectariferum Hook f. (No. 198). In fruit.

Between Lungleh and Ridge Camp. Alt circa 3,000 feet.

Distrib. Sikkim; Khasia hills; Assam; Chittagong and Burmah; South India; Ceylon; Malacca; Java.

33. Dysoxylum procerum Hiern. (No. 177).

In fruit. Fort Lungleh.

Distrib. Sikkim; Bhotan; Khasia hills; Assam; Chittagong and Burmah.

34. Chisocheton paniculatus Hiern. (No. 203).

In fruit. Fort Lungleh,

Distrib. Sikkim; Cachar; Khasia hills; Assam; Chittagong and Burmah.

35. Aglaia Chittagonga Miq. (No. 161).
In fruit, Fifteen miles South-East of Lunglep. Alt. 3,000 feet.
Distrib. Khasia hills; Duphla hills; Akha hills; Chittagong; Burmah.

XIX.-CELASTRINEÆ.

36. Microtropis discolor Wall. (No. 159).
In fruit. Fifteen miles South-East of Fort Lungleh.
Distrib. North-West Himalayas; Sikkim; Khasia hills;
Assam; Manipur; Kachin hills; Burmah.

37. Celastrus monosperma Roxb. (Nos. 16 and 147). In fruit. Fort Lungleh. Distrib. Sikkim; Khasia hills; Naga hills; Burmah.

38. Gymnosporia acuminata Hook, f. (No. 40).

In fruit. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Eastern Peninsula; Burmah; Yunnan

XX.-AMPELIDEÆ.

39. Vitis adnata Wall. (No. 220).

In fruit. Demagiri. Alt. circa 500 feet.

Distrib. North-Western Himalaya; Sikkim; Khasia hills; Cachar; Assam; Chittagong and Burmah; S. India; Malay Peniusula.

40. Vitis angustifolia Wall. (No. 221).

In fruit. Fort Lungleh.

Distrib. Khasia hills; Kachin hills; Silhet; Assam; Sumatra; Hong Kong.

41. Vitis capriolata Don (No. 104).

In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
Distrib. North-Western Himalaya; Sikkim; Khasia Hills;
Assam; Kachin hills; Chittagong and Burmah.

42. Vitis lanceolaria Wall. (No. 8).

In fruit. Fort Lungleh.

Distrib. North-Western Himalaya; Nepal; Sikkim; Khasia hills; Assam; Chittagong and Burmah; Andamans; South and West India; Ceylon; Malaya; Java.

43. Vitis Japonica Thunb. (No. 219).

In flower. Demagiri. Alt 500 feet.

Distrib. Sikkim; Khasia Hills; Naga hills; Manipur; Assam; Chittagong and Burmah; Nicobars; Andamans; South India; Malaya; Java; China.

44. Leea sambucina Willd. (No. 85).

In fruit. Fort Lungleh,

Distrib. Common throughout India and Burmah; Ceylon; Malaya; China; Philippines; Australia.

XXI.-SAPINDACEÆ.

45. Acer sp. (No. 138).

In fruit. Fifteen miles S. E. of Lungleh.

Not matched in Herb. Calcutta. Nearest Acer isolobum Kurs but quite distinct.

46. Turpinia pomifera D.C. (No. 555).

In fruit. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Naga hills; Assam; Kachin hills; Chittagong and Burmah; South and West India, Malaya; Yunnan; China.

Calycifloræ.

XXII.-CONNARACEÆ.

47. Connarus paniculatus Rexb. (No. 27).

In fruit. Fort Lungleh.

Distrib. Khasia; Silhet; Assam; Chittagong; Burmah.

XXIII —LEGUMINOSÆ.

48. Crotalaria ferruginea *Grah.* (No. 92).

In fruit. Helio hill; Lungleh. 3,700 feet.

Distrib. Nepal; Sikkim; Khasia hills; Naga hills; Kachin

hills; Chittagong and Burmah; Ceylon; Java; Sumatra; Philippines; Formosa.

49. Desmodium gangeticum D.C. (No. 224).

In fruit. Fort Lungleh.

Distrib. Universal in the tropics.

50. Erythrina stricta Roxb. (No. 112).
In flower and fruit. Fort Lungleh.

Distrib. India from Rajputana to Orissa; Assam; Burmah and Chittagong.

51. Mucuna imbricata D.C. (No. 225).

In flower. Fort Lungleh.

Distrib. North-Western Himalaya; Sikkim; Silhet; Assam; Manipur; Burmah; Andamans.

- 52. Dunbaria podocarpa Kurs. (No. 192). In flower and fruit. Fort Lungleh. Distrib. Burmah.
- 53. Flemingia stricta Roxb. (No. 227).
 In fruit. Fort Lungleh.
 Distrib. North-Western Himalaya; Sikkim; Oude; South and Central India; Assam; Chittagong and Burmah.
- 54. Dalbergia volubilis Roxb. (No. 196).
 In fruit. Fort Lungleh.
 Distrib. Sikkim Terai; Assam; Chittagong and Burmah;
 Andamans; Oude; Bihar; Central, South, and West India.
- 55. Derris monticola Prain. (No. 23).In flower. Fort Lungleh.Is Milletia monticola Kurs.Distrib. Burmah.
- 56. Derris thyrsiflora Bth. (No. 32).
 In flower. Fort Lungleh.
 Distrib. Eastern Himalaya; Khasia Hills; Malaya.
- 57. Cassia timorensis D.C. (No. 226).
 In fruit. Fort Lungleh.
 Distrib. Chittagong and Burmah; Malaya; Western India;
 Ceylon; Philippines; Australia.
- 58. Bauhinia rufa *Grah*. (No. 136).
 In fruit. Fifteen miles S. E. of Lungleh.
 Distrib. Assam; Burmah.
- 59. Bauhinia glauca Wall.
 In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
 Distrib. Burma; Malaya; China.
 A decided northward extension of this species.
- Saraca indica Linn. (No. 213).
 In flower. Between Ridge Camp and Lungsin. Alt. 2,000—2,500 feet.
 Distrib. Central and Eastern Himalaya; Khasia hills:

Distrib. Central and Eastern Himalaya; Khasia hills;
Assam; Chittagong and Burmah; South and West India;
Ceylon; Malaya.

61. Entada Pursætha D.C. (No. 90).
Entada scandens of the Flora of British India.
In flower. Helio hill, Isungleh. Alt. 3,700 feet.
Distrib. Nepal; Sikkim; Khasia hills; Naga hills; Manipur;
Assam; Chittagong and Burmah; Andamans; Malaya;
South and West India; Ceylon.

62. Acacia Intsia Willd. (No. 79). Var. oxyphylla. In fruit Fort Lungleh.

Distrib. Tropical Himalaya; South and West India; Assam; Chittagong and Burmah; Malaya; Ceylon.

63. Acacia pennata Willd. var. arrophula (No. 106).
In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
Distrib. Nepal; Sikkim; Khasia hills; Assam; Chittagong and Burmah; Andamans; Malaya; Central India.

64. Acacia pruinescens Kurs. (No. 121). In fruit. Fort Lungleh. Distrib. Kachin hills; Upper Assam.

65. Albizzia stipulata Boiv. (No. 124). In flower. Fort Lungleh.

Distrib. North-West Himalaya; Nepal; Sikkim; Khasia hills; Naga hills; Chittagong and Burmah; Andamans; South and West India; Ceylon; Malaya; Borneo; Java.

XXIV.—ROSACEÆ.

66. Rubus moluccanus Linn. (No. 21).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Chin hills; South and West India and Ceylon; Manipur; Burmah; Malaya.

67 Rubus ellipticus Smith (No. 62).

In fruit. Fort Lungleh.

Distrib. North-West Himalaya; Nepal; Sikkim; Khasia hills; Kachin hills; Manipur; Assam; Burmah; Yunnan; South-West India; Ceylon.

68. Rubus lasiocarpus Smith (No. 58).

In flower. Fort Lungleh.

Distrib. North-West Himalaya; Sikkim; Naga hills; Assam; Chin hills; Burmah; South and West India; Ceylon; Java.

69. Rubus rosæfolius Smith (Nos. 30 and 51).

In fruit. Fort Lungleh.

Distrib. North-West Himalaya; Sikkim; Khasia hills; Naga hills; Assam; Burmah; Java.

70. Eriobotrya bengalensis Hook. f. (No. 155.)

In fruit. Fifteen miles South East of Lungleh.

Distrib. Sikkim; Khasia hills; Manipur; Chittagong and Burmah; Malacca.

XXV.--RHIZOPHOREÆ.

71. Caralia integerrima DC. (No. 57).

In flower Fort Lungleh.

Distrib. Sikkim Terai; Bengal; Silhet; Cachar; Khasia hills; Manipur; Assam; Chittagong and Burmah; Andamans; South-West India; Ceylon; Malaya.

XXVI.—COMBRETACEÆ.

72. Calycopteris floribunda Lamk. (No.--).

In fruit. Demagiri. Alt. 500 feet.

Distrib. Assam; Chittagong and Burma; Andamans; South and West India; Malaya.

- 73. Anogeissus acuminata Wall. (No. 109) var. lanceolata. In fruit. Fort Lungleh.
 Distrib. Chittagong and Burmah.
- 74. Combretum squamosum Roxb. (Nos. 110 and 111).
 In fruit. Fort Lungleh.
 Distrib. Nepal; Sikkim; Khasia hills; Assam; Chittagong
- and Burmah; Malay; Philippines.

 75. Combretum dasystachyum Kurs (No. 187).

 In flower. Fort Lungleh.

Distrib. Khasia hills; Cachar; Silliet; Chittagong and Burmah.

XXVII.-MYRTACEÆ.

76. Eugenia polypetala Wight. (No.—). In flower. Demagiri. Alt 500 feet. Distrib.

XXVIII.—MELASTOMACEÆ.

77. Melastoma normale Don. (No. 73).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Bhotan; Khasia hills; Naga hills; Kachin hills; Burmah; Indo-China.

78. Sonerila maculata Roxb. (No. 259). Leaf specimen. Fort Lungleh.

Distrib. Nepal; Khasia hills; Assam; Kachin hills; Burmah

79. Medinilla rubicunda Bl. (No. 25).

In fruit. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Assam; Malaya.

XXIX.—LYTHRACEÆ.

80. Duabunga sonneratoides Ham. (No. 72).

In flower and fruit. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Chittagong and Burmah; Andamans; Malaya.

XXX.—CUCURBITACCÆ.

81. Hodgsonia heteroclita Hook. f. (No. 101).
In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
Distrib. Sikkim; Khasia hills; Assam; Chittagong and
Burmah; Malaya.

82. Thladiantha calcarata C. B. Clorke (No. 210).
In flower. Between Ridge camp and Lungsin. Alt. 2,000 feet.
Distrib. Sikkim; Khasia hills; Assam; Chittagong and
Burmah; Malaya; China.

XXXI.—BEGONIACEÆ.

83. Begonia barbata Wall. (Nos. 232 and 233). In flower and fruit. Fort Lungleh. Distrib. Assam; Burmah; Chittagong.

XXXII.-UMBELLIFERÆ.

84. Hydrocotyle javanica Thunb. (No. 234).
In fruit. Between Tuichong and Demagiri. Alt. 500-1,000 feet.

Distrib. Throughout South-Eastern Asia and in Eastern Africa.

XXXIII.—ARALIACEÆ.

85. Heptapleurum venulosum Seem (No. 175), var. macrophylla. In fruit. Fort Lungleh. Distrib. Throughout tropical and subtropical India; Malaya;

Australia.

86. Trevesia palmata Vis. (No. 222). In fruit. Demagiri. Alt. 500 feet.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Chittagong and Burmah; Malaya.

87. Brassaiopsis speciosa Done. and Planch. (No. 156).
In fruit. Fifteen miles South-East of Lungleh.
Distrib. Nepal; Sikkim; Khasia hills; Naga hills; Assam;
Chittagong and Burmah; Java.

Corollifloræ.

XXXIV.-RUBIACEÆ.

88. Uncaria sessilifructus *Roxb*. (Nos. 18 and 223). In fruit. Fort Lungleh.

Distrib. Nepal; Sikkim; Bhotan; Khasia hills; Assam; Kachin hills; Chittagong and Burmah; Indo-China.

89. Uncaria homomalla Miq. (No. 28). In flower. Fort Lungleh.

Distrib. Khasia hills; Sumatra.

90. Wendlandia glabrata D.C. (No. 34). In flower. Fort Lungleh.

Distrib. Khasia hills; Naga hills; Manipur; Burmah; Yunnan; South India; Malaya; Formosa.

91. Hedyotis scandens Roxb. (No. 48).

In fruit. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Akha hills; Kachin hills; Chittagong.

92. Ophiorrhiza Harrissiana Heyne., var. argentea. (No. 188). In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Silhet; Kachin hills Chittagong; South and West India; Ceylon.

93. Mussænda glabra Vahl. (No. 186).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Manipur; Cachar Assam; Chittagong and Burmah; Malaya.

94. Mussænda macrophylla Wall. (No. 277). In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia; Burma; Andamans; Malaya.

95. Adenosacme longifolia Wall. (No. 150).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. North-Western Himalaya; Sikkim; Khasia hills; Duphla hills; Cachar; Manipur; Chittagong and Burmah; Malaya.

96. Randia longiflora Lamk. (No. 235).

In flower. Between Ridge camp and Lungsin. Alt. circa 2,500 feet.

Distrib. Khasia hills; Silhet; Assam; Chittagong and Burmah; Andamans; Malaya.

97. Ixora subsessilis Wall. (No. 145).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. Assam; Khasia hills; Naga hills; Manipur.

98. Ixora villosa Roxb. (No. 236).

In flower. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Silhet; Cachar; Assam; Burmah; Malaya.

99. Pavetta indica Linn. (Nos. 82 and 176).

In flower. Fort Lungleh.

Distrib. Throughout India, Ceylon and Malaya; South China; North Australia.

100. Morinda angustifolia Roxb. (No. 39).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Chittagong and Burmah.

101. Psychotria calocarpa Kurs (No. 169).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Cachar; Assam; Kachin hills; Chittagong and Burmah.

XXXV.—COMPOSITÆ.

102. Vernonia blanda D.C. (No. 13).

In fruit. Fort Lungleh.

Distrib. Khasia hills; Manipur; Burmah.

103. Ageratum conyzoides Linn. (No. 165).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. Throughout India.

104, Conyza stricta Willd. (No. 88).

In flower, Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. North-Western Himalaya; Sikkim; Khasia hills, Assam; Chittagong and Burmah; South and Western India; East Africa.

105. Blumea lacera D.C. (No. 89).

In fruit. Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Throughout India and Ceylon; Malaya; China; Tropical Africa.

106. Blumea densiflora D.C. (No. 98).

In fruit. Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Sikkim; Khasia hills; Naga hills; Duphla hills Burmah; Yunnan and Malaya,

107. Blumea balsamifera D.C. (No.-).

In flower. Bank of Karnaphuli river. Alt. 500 feet.

Distrib. Nepal; Sikkim; Khasia hills; Kachin hills; Assam; Burmah; China; Indo-China; Malaya.

- 108. Laggera pterodonta Bth. (No. 151).
 - In fruit. Fifteen miles South-Rast of Lungleh.
 - Distrib: North-Western Himalaya; Sikkim; Khasia hills; Manipur; Burmah; South and Western India; Tropical Africa.
- In flower. Fifteen miles South-East of Lungleh, Distrib. Throughout the tropics.
- In fruit. Fifteen miles South-East of Lungleh.

 Distrib. Cosmopolitan in the tropics.
- In flower. Helio hill, near Lungleh. Alt. 3,700 feet. Distrib. General throughout the tropics.

XXXVI.--CAMPANULACEÆ.

In flower and fruit. Between Lungleh and Ridge camp.
Alt. 3,000 feet.

Distrib. Sikkim; Chittagong; Burmah and Malaya.

XXXVII.--MYRSINEÆ

- II3. Maesa indica Wall. (No. 2).
 In flower and fruit. Fort Lungleh.
 Distrib. Throughout India and Ceylon; Malaya; South
 China.
- In flower. Fort Lungleh.
 Distrib. Silhet; Assam; Burmah.
- In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
 Distrib. North-Western Himalaya; Nepal; Sikkim;
 Khasia hills; Manipur; Burmah.
- 116. Embelia Ribes Burm. (No. 122).
 In fruit. Fort Lungleh.
 Distrib. Throughout India and Ceylon, Malaya; South China.
- 117 Ardisla paniculata Roxb. (No. 65). In flower. Demagiri. Alt. 1,000 feet. Distrib. Khasia hills; Assam; Chittagong.

118. Ardisia colorate Roxb. (No. 237).

In fruit. Between Ridge camp and Lungain. Alt. 2,500 feet.

Distrib. Assam; Cachar; Chittagong; Burmah and Malaya.

119. Antistrophe oxyantha A.D.C. (No. 143).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. Sikkim; Khasia hills; Garo hills and Silhet.

XXXVIII.—STYRACEÆ.

In fruit. Fifteen miles South-East of Lungleh.

Distrib. Collected by Gallatly in Tenasserim in 1877.

121. Styrax serrulatum Roxb. Var. agrestis. (No. 238).
In bud. Fifteen miles South-East of Lungleh.
Distrib. Sikkim; Khasia hills; Chittagong; Burmah;
South India.

XXXIX.—OLEACEÆ.

122. Jasminum coarctatum Roxb. (No. 275).

In flower. Fort Lungleh.

Distrib. Khasia hills; Duphla hills; Asaam; Chittagong; Burmah.

123. Jasminum anastomosans Wall. (No. 49).

In flower. Fort Lungleh.

Distrib. Bhotan; Khasia hills; Naga hills; Cachar; Silhet; Manipur; Kachin hills; Burmah.

124. Jasminum Listeri King. Mss. in Herb. Calc. (No. 78). In flower. Fort Lungleh.

Collected by Lister in Chittagong hill tracts in 1876.

Scandent shrub, branches pale brown glabrous, branchlets faintly pubescent. Leaves opposite, simple, petiole \(\frac{1}{4}\)", lamina 3" to 5" by 1\(\frac{1}{4}\)", lanceolate acuminate, base cuneate, glabrous above, faintly pubescent on nerves beneath, main nerves 4 to 5, prominent beneath. Cymes rather lax, axillary, capitate, pubescent, much shorter than the leaves, 5 or 6 flowers in each cyme. Peduncle \(\frac{1}{6}\)", pedicels \(\frac{1}{6}\)". Bracts subulate, minute, a to 3 pairs, pedicels and calyx slightly villose, calyx teeth subulate, faintly villous \(\frac{1}{6}\)", Stamens two, in the throat of the corolla, on very short filaments, anthers oblong, aristate. Ovary 2-celled, style cylindric, stigma, bifid, lobes linear, ovules 2 in each cell.

This is a very distinct and pretty species, and would appear to come between Jasminum undulatum Ker and J. pubescens Willd. of the Flora of British India.

125. Ligustrum robustum Bl. (No. 99).
In fruit. Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Sikkim; Khasia hills; Chittagong; Burmah; Malaya.

XL.—APOCYNACEÆ.

126. Melodinus monogynus Roxb. (No. 240).
In flower. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Duphla hills; Silhet; Assam; Malaya.

127. Melodinus sp. (Nos. 17 and 154).
In fruit. Fort Lungleh.
Not matched in Herb, Calc.

128. Tabernæmontana coronaria Br. (No. 199).
In flower. Between Lungleh and Ridge camp. Alt. 3,000 feet.

Distrib. Throughout India.

129. Anodendron paniculatum A. D. C. (Nos. 81 and 97).
In flower and fruit. Fort Lungleh.
Distrib. Khasia hills; Duphla hills; Silhet; Chittagong;
Burmah; South and West India; Ceylon; Java; Philippines.

XLI.—ASCLEPIADACEÆ.

130. Gymnema sp. (No. 74).
In flower. Fort Lungleh.
Not matched in Herb. Calc.

XLII.—LOGANIACEÆ.

131. Buddleia asiatica Lour. (No.——).

Common everywhere.

Distrib. Throughout India; Malaya; Indo-China; China.

XLIII.—BORAGINEÆ.

132. Ehretia Wallichiana *Hook. f. and T.* (Nos. 84 and 184). In flower and fruit. Fort Lungleh. Distrib. Sikkim; Bhotan; Assam; Khasia hills.

- 133. Tournefortia Roxburghii C. B. Clarke (No. 181). In fruit. Fort Lungleh. Distrib. Chittagong hill tracts.
- 134. Heliotropium indicum Linn. (No.——).

 Common. In flower and fruit.

 Distrib. Throughout India; Malaya; East Asia; Tropical

 Africa; Tropical America.

XLIV.—CONVOLVULACEÆ.

- 135. Ipomœa kingii *Prain.* (No. 76).
 In flower and fruit. Fort Lungleh.
 Distrib. Sikkim; Bhotan; Khasia; Assam; Burmah.
- 136. Ipomœa vitifolia Sweet. (No. 241).
 In fruit. Demagiri. Alt. 1,000 feet.
 Distrib. Throughout India; Ceylon and Malaya.

XLV.-SOLANACEÆ.

- 137. Solanum torvum Swarts (No. 242).
 In flower. Fort Lungleh.
 Distrib. Throughout India; Indo-China; China; Malaya;
 Tropical America.
- 138. Solanum indicum Linn. (No. 91).
 In fruit. Helio hill, Lungleh. Alt. 3,700 feet.
 Distrib. Throughout India; Indo-China; Malaya.
- 139. Datura fastuosa Linn. (No. 1).
 In flower. Fort Lungleh.
 Distrib. Throughout India; Malaya; Tropical Africa.
- 140. Nicotiana Tabacum Linn. (No.——).
 Common. In flower. Throughout India.

XLVI.—SCROPHULARINEÆ.

141. Mazus rugosus Lour. (No. 164).
In flower. Fort Lungleh.
Distrib. Afghanistan; North-West Himalaya; Sikkim; Bhotan; Khasia hills; Assam; Chittagong; Burmab; Malaya; China; Japan; Philippines.

142. Lindenbergia philippensis Benth. (No. 244).

In fruit. Demagiri. Alt. 1,000 feet.

Distrib. Naga hills; Shan hills; Chittagong; Burmab; Indo-China; China,

143. Torenia vagans Roxb. (No. 243).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Assam; Kachin hills; Chittagong.

XLVII.—GESNERACEÆ.

144. Aeschynanthus sp. (No. 130).

In fruit. Sect. Haplotrichium.

Fifteen miles South-East of Lungleh. Not matched in Herb. Calc.

XLVIII.—BIGNONIACEÆ.

- Only fruit gathered. Fort Lungleh.

 Distrib. Throughout India; Indo-China; Malaya.
- 146. Stereospermum glandulosum Miq. (No. 153).
 In flower and young fruit. Fifteen miles South-East of Lungleh.
 Distrib. Burmah; Malaya.

XLIX.—ACANTHACEÆ.

147. Thunbergia grandiflora Roxb. (No. 211).

In flower. Between Ridge camp and Lungsin. Alt. 2,500 feet.

Distrib. East Bengal; Assam; Manipur; Kachin hills; Chittagong hill tracts.

148. Hemigraphis hirta T. And. (No. 251).

In flower and fruit. Fort Lungleh.

Distrib. North-Western Provinces; Bengal; Central Provinces; Pegu.

149. Acanthus leucostachyus Wall. (No. 141).

In flower Fifteen miles South-East of Lungleh.

Distrib. Khasia hills; Duphla hills; Cachar; Manipur; Kachin hills; Chittagong hill tracts.

150. Eranthemum album Nees (No. 64).

In flower. Fort Lungleh.

Distrib. Jaboca Naga hills; Assam; Chittagong; Burmah; Andamans; Nicobars.

151, Phlogacanthus tubiflorus Nees (No. 6).

In fruit. Fort Lungleh.

Distrib. Khasia hills; Duphla hills; Manipur; Kachin hills.

152. Phlogacanthus guttatus Nees (No. 190).

In fruit. Fort Lungleh.

Distrib. Khasia hills; Jaboca Naga hills; Chittagong hill tracts.

153. Lepidagathis hyalina Nees (No. 250).

In fruit. Demagiri. Alt. 1,000 feet.

Distrib. Throughout North India; Assam; Chittagong; Burmah; Indo-China; China.

154. Rhinacanthus calcaratus Nees (No. 11).

In flower. Fort Lungleh.

Distrib. Khasia hills; Cachar; Chittagong hill tracts.

155. Rungia parviflora Nees var. muralis. (No. 134).

In flower. Fifteen miles South-East of Lungleh.

Distrib. of the variety. South India; Chittagong hill tracts.

156. Dicliptera Roxburghiana Nees var. linearis Kurs in Herb. Calc. (No. 135).

In flower. Fifteen miles South-East of Lungleh.

Collected by Kurs in Pegu.

157. Peristiophe fera C. B. Clarke. (No.--).

In flower. Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Bhotan; Assam; Khasia.

L.—VERBENACEÆ.

158. Gmelina arborea Roxb. (No. 248). In flower. Fort Lungleh. Distrib. South-Eastern Asia.

159. Clerodendron infortunatum Gærts. (No. 107). In flower and fruit. Fort Lungleh. Distrib. India; Indo-China; Malaya.

160. Caryopteris paniculata C. B. Clarke. (No 148). In fruit. Fifteen miles South-East of Lungleh.

Distrib. Nepal; Sikkim; Mishmi hills; Kachin hills; Upper Burmah; Yunnan.

LI.—LABIATÆ.

161. Pogostemon parviflorus Bth. (No. 10).

In fruit. Fort Lungleh.

Distrib. North-West Himalaya; Sikkim; Bhotan; Khasia hills; Silhet; Assam; Chittagong; Burmah; Andamans; South and West India.

162 Pogostemon glaber Bth. (No. 247).
In fruit. Fifteen miles South-East of Lungleh.
Distrib. Nepal; Sikkim; Khasia hills; Kachin hills; Upper Burmah.

163. Pogostemon fraternus Miq. (No. 245).

In fruit. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Naga hills; Manipur; Upper Burmah; Java.

164. Ajuga macrosperma Wall. var. typica. (No. 246).

In flower. Fort Lungleh.

Distrib. of the variety. Khasia hills; Naga hills; Assam; Chittagong and Burmah.

LII.—PLANTAGINEÆ.

163. Plantago major Linn. (No. 63).

In fruit. Fort Lungleh.

Distrib. Throughout India in hilly regions; Ceylon; Malaya; Afghanistan and westwards.

Incomplet æ.

LIII.—AMARANTACEÆ.

166 Amarantus viridis Linn. (No. 268).
In flower. Fort Lungleh.

Distrib. Throughout tropical countries.

167. Aerua scandens Wall. (No. 137).

In fruit. Fifteen miles South East of Lungleh.

Distrib. Throughout the tropics of the Old World.

LIV.—POLYGONACEÆ.

168. Polygonum alatum Ham. (No. 163).

In fruit. Fifteen miles South-East of Lungleh.

Distrib. India; Indo-China; Japan; Abyssinia.

In fruit. Fort Lungleh.

Distrib. South-Eastern Asia.

LV.—ARISTOLOCHIACEÆ.

170. Aristolochia sp. (No. 24).

In flower.

Like Wall. cat. 2705 D in Herb. Calc. but with tomentose veins.

Near Fort Lungleh.

LVI.—PIPERACEÆ.

171. Piper peepuloides Roxb. (No. 94).
In flower. Fifteen miles. South-East of Lungleh.
Distrib. Nepal; Sikkim; Bhotan; Assam; Silhet; Khasia hills; Chittagong.

172. Piper boehmeriæfolium Wall. (No. 47).
In flower. Fort Lungleh.
Distrib. Sikkim; Bhotan; Assam; Silhet; Khasia hills;
Burmah.

LVII.-MYRISTICEÆ.

173. Myristica longifolia Wall. (Nos. 114 and 152).
In fruit. Near Lungleh.
Distrib. Sikkim; Assam; Silhet; Khasia hills; Chittagong;
Burmah.

LVIII.—LAURINEÆ.

174. Beilschmiedia assamica Meisn. (No. 171).
In fruit. Fifteen miles South-East of Lungleh.
Distrib. Sikkim; Khasia hills; Manipur; Assam.

175. Cinnamomum Tamala Fr. Nees (No. 47).
In flower and fruit. Fort Lungleh.
Distrib. Tropical and Sub-Tropical Himalaya; Silhet; Khasia; Assam.

176. Litsæa Salicifolia *Hook. f.* (Nos. 3 and 12) var. attenuata. In flower. Fort Lungleh.

Distrib. of the variety. Silhet; Assam.

177. Alseodaphne petiolaris. Hook. f. (No. 75).
In fruit. Fort Lungleh.
Distrib. Assam; Cachar; Burmah.

LIX.—ELEAGNACEÆ.

178. Elæagnus latifolia Linn. (No. 37).

In fruit. Fort Lungleh.

Distrib. North-West Himalaya; Sikkim; Bhotan; Mishmi hills; Khasia hills; Chittagong; Burmah; South India; Ceylon; Malaya; Indo-China; China.

LX.-EUPHORBIACEÆ.

- In fruit and flower. Fort Lungleh. Distrib. Throughout the tropics.
- 180. Bridelia stipularis Bl. (No. 105).
 In fruit. Fort Lungleh.
 Distrib. Throughout India; Ceylon; Malaya; Philippines
 Tropical Africa.
- 181. Phyllanthus reticulatus Poiv. (No. 191).
 In flower. Fort Lungleh.
 Distrib. Throughout India and Ceylon; Malaya; China;
 Tropical Africa.
- 182. Breynia patens Benth. (No. 276).
 Female in flower and fruit. Lungleh and Lungsin. Alt. 2,000 to 3,000 feet.
 Distrib. Nepal; Sikkim; Mishmi hills; Khasia hills; Silhet;
- Manipur; Chittagong; Burmah; South India; Ceylon.

 183. Cyclostemon assamicus *Hook, f.* (No. 182).
- In fruit. Fort Lungleh.

 Distrib. North-West Himalaya; Sikkim; Khasia hills;

 Assam; Sunderbuns; Chittagong; Arracan; Andamans.
- 184. Aporosa oblonga Muell. Arg. (No. 194). In fruit. Fort Lungleh. Distrib. Burmah; Chittagong.
- 185. Baccaurea sapida Muell. Arg. (No. 116).
 In flower. Fort Lungleh.
 Distrib. Sikkim; Silhet; Khasia hills; Assam; Burmah;
 Andamans; Malaya.
- 186. Antidesma Bunius Spreng. (No. 170).
 In fruit. Fifteen miles South-East of Lungleh.
 Distrib. Throughout India and Malaya.

- 187. Croton oblongifolius Roxb. (No. 38).
 In fruit. Fort Lungleh.
 Distrib. India; Assam; Burmah.
- 188. Alchornea rugosa Muell. Arg. (No. 128).
 In flower. Fifteen miles South-East of Lungleh.
 Distrib. Burmah; Andamans; Malaya; China.
- 189. Mallotus Roxburghiana Muell. Arg. (No. 260).
 In flower. Fort Lungleh.
 Distrib. Sikkim; Khasia hills; Silhet; Manipur; Assam;
 Chittagong; Burmah.
- 190. Ricinus communis Linn. (No. 125).
 In fruit. Fort Lungleh.
 Distrib. Throughout the tropics.
- 191. Homonoia riparia Lour. (No. 258).
 In flower. Demagiri. Alt. 200 feet.
 Distrib. India, Indo-China; Malaya; China.
- 192. Sapium insigne Bth. (No. 35).
 In fruit. Fort Lungleh.
 Distrib. North-West Himalaya; Nepal; East Himalaya;
 Chittagong; Burmah.

LXI.—URTICACEÆ.

- 193. Ficus subulata Bl. (Nos. 212 and 254).

 Between Ridge Camp and Lungsin. Alt. 2,000 feet.

 Distrib. From Chittagong southwards to the Malayan

 Archipelago; China.
- 194. Ficus urophylla Wall. (No. 14).

 Fort Lungleh.

 Distrib. Assam; Khasia; Chittagong; Burmah; Malaya.
- Ficus retusa Linn. var. nitida Thunb. (No. 123).
 Fort Lungleh.
 Distrib. of the variety. Eastern Himalaya; Assam; Khasia hills; Burmah; Malaya.
- 196. Ficus hispida Linn. f. (No. 253).

 Banks of the Karnaphuli river. Alt. 100-200 feet.

 Distrib. Throughout India; Malaya; Hong Kong;

 Australia.

- 197. Ficus cunia Ham. (No. 197).

 Between Lungleh and Ridge Camp. Alt. 3,000 feet.

 Distrib. Sub-Himalayan forests; Central India; Assam; Khasia; Chittagong; Burmah; Malaya.
- 198. Ficus hirta Vahl. (No. 142).

 Fifteen miles South-East of Lungleh.

 Distrib. Eastern Himalaya; Assam; Burmah; Malaya;

 China.
- 199. Ficus pomifera. Wall. (No. 129).

 Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

 Distrib. Sikkim; Assam; Chittagong; Burmah; Malaya.
- 200. Allæanthus Kurzii. Hook. f. (No. 53).

 Male flowers. Fort Lungleh.

 Distrib. Assam and Burmah.
- 201. Cudrania fruticosa Wight ex. Kurz For. Flor. (No. 19).
 In fruit. Fort Lungleh.
 Distrib. Khasia hills; Kachin hills; Chittagong; Burmah.
- 202. Artocarpus Lakoocha Roxb. (No. 201).

 Between Lungleh and Ridge Camp. Alt. 2,000-3,000 feet.

 Distrib. Tropical Himalaya; Burmah; South India; Malaya.
- 203. Conocephalus suaveolens Bl. (No. 256).
 In flower. Fort Lungleh.
 Distrib. Sikkim; Khasia hills; Kachin hills; Assam;
 Burmah; Malaya.
- 204. Girardinia heterophylla *Dene*. (Nos. 5 and 7).

 In fruit. Fort Lungleh.

 Distrib. North-West Himalaya; Sikkim; Assam; Silhet;

 Burmah; Central and South India; Ceylon; Java.
- 205. Elatostema sesquisolium Hassk. (No. 55).
 In flower. Fort Lungleh.
 Distrib. Khasia hills; Assam; Chittagong; Burmah;
 Andamans; Nicobars; Java.
- 206. Bæhmeria malabarica Wedd. (Nos. 4 and 54).
 In flower. Fort Lungleh.
 Distrib. Sikkim; Mishmi hills; Khasia hills; Chittagong;
 Burmah; South and West India; Ceylon; Java.
- 207. Sarcochlamys pulcherrima Gaud. (No. 131).

 Leaf specimens only. Fifteen miles South-East of Lungleh.

 Distrib. North-West Himalaya; Bhotan; Assam; Khasia
 hills; Silhet; Cachar; Chittagong; Burmah.

LXII.—GNETACCÆ.

208. Gnetum Gnemon Linn. (Nos. 269 and 270).
In flower and fruit. Fort Lungleh.
Distrib. Khasia hills; Kachin hills; Manipur; Malaya.

MONOCOTYLEDONES.

LXIII.—ORCHIDACEÆ.

Nearly all the species of orchids in the following list were contributed by Lieut. Bailey from his collection, and consequently bear no field number. All were collected in the Fort Lungleh district, but the exact localities and altitudes had not been noted:—

- 209. Oberonia iridifolia Lindl.
 Distrib. India; Indo-China.
- 210. Liparis longipes Lindl.
 Distrib. India; Indo-China; China; Malaya.
- 211. Dendrobium cariniferum Reichb. f.
 Distrib. Naga hills; Manipur; Shan hills; Kachin hills.
- 212. Dendrobiun formosum Roxb.

 Distrib Nepal; Sikkim; Bhotan; Khasia hills; Assam

 Burmah; Andamans.
- 213. Dendrobium anceps Swarts.

 Distrib. Sikkim; Bengal; Assam; Burmah.
- 214. Dendrobium bicameratum Lindl.

 Distrib. Sikkim; Khasia hills; Behar; Burmah.
- 215. Dendrobium cretaceum Lindl.

 Distrib. Western Himalaya; Khasia hills; Kachin hills;

 Burmah.
- 216. Dendrobium heterocarpum Wall.

 Distrib. Nepal; Sikkim; Khasia hills; Assam; Burmah;

 South India; Ceylon.
- 217. Dendrobium transparens Wall.

 Distrib. North-Western Himalaya; Sikkim; Khasia hills;

 Garo hills; Assam; Kachin hills.
- 218. Dendrobium crepidatum Lindl.
 Distrib. Khasia hills; Assam; Burmah; West India.
- 219. Dendrobium pendulum Roxb.

 Distrib. Chittagong; Burmah; Siam.

- 220. Dendrobium Devonianum Post.

 Distrib. Bhotan; Khasia Hills; Naga Hills; Assam; Burmah.
- 221. Dendrobium fimbriatum Hook. var. oculata.
 Distrib. of species. North-West Himalaya; Sikkim; Khasia hills; Manipur Burmah.
- 222. Dendrobium Gibsoni Lindl.
 Distrib. Sikkim; Assam; Khasia hills; Burmah.
- 223. Dendrobium chrysanthum Wall.
 Distrib. Nepal; Sikkim; Khasia hills; Shan hills; Kachin hills.
- 224. Dendrobium ochreatum Lindl. (No. 214).In flower. Fort Lungleh.Distrib. Naga hills; Khasia hills; Chittagong.
- 225. Dendrobium aggregatum Roxb. Distrib. Assam; Burmah.
- 226. Dendrobium chrysotoxum Lindl. (No. 197). In flower. Fort Lungleh. Distrib. Burmah; Assam.
- 227. Bulbophyllum Lobbii Lindl. (No. 179). In flower. Fort Lungleh. Distrib. Burmah; Siam; Java.
- 228. Cirrhopetalum picturatum G. Lodd. Distrib. Burmah.
- 229. Eria convallarioides Lindl.
 Distrib. North-Western Himalaya; Sikkim; Khasia hills;
 Naga hills; Burmah.
- 230. Eria pannea Lindl.
 Distrib. Sikkim; Khasia hills; Kachin hills; Burmah; Malaya.
- 231. Eria bambusifolia. Lindl.
 Distrib. Sikkim; Khasia hills; Kachin hills; Southern India.
- 232. Eria tomentosa *Hook. f.* (No. 228). In flower. Fort Lungleh. Distrib. Silhet; Khasia hills; Chittagong; Burmah.
- 233. Phajus maculatus Lindl. Distrib. Nepal; Sikkim; Khasia hills; Indo-China; China; Japan.
- 234. Phajus albus Lindl.
 Distrib. North-West Himalaya; Nepal; Sikkim; Khasia hills;
 Kachin hills; Burmah; Southern India; Indo-China.

- 235. Cœlogyne Gardneriana Lindl.
 Distrib. Himalaya; Assam hills; Karen hills.
- 236. Cœlogyne graminifolia Par. and Reichb. f. Distrib. Assam; Tenasserim; Kachin hills.
- 237. Cœlogyne fuscescens Lindl.

 Distrib. Nepal; Sikkim; Khasia hills.
- 238. Cœlogyne ovalis Lindl.

 Distrib. North-Western Himalaya; Sikkim; Khasia hills.
- 239. Cœlogyne elata Lindl.
 Distrib. North-Western Himalaya; Nepal; Sikkim; Bhotan;
 Assam; Burmah.
- 240. Cœlogyne maculata? Lindl.
 Distrib. Nepal; Sikkim; Bhotan; Khasia hills.
- 241. Pholidata imbricata Lindl. (No. 229).

 Fort Lungleh.

 Distrib. Himalaya; Assam; Burmah; Andamans.
- 242. Pholidota advena? Rickb. f. Distrib. Burmah.
- 943. Pholidota Convallarize Hook.f. (No. 195).

 Fort Lungleh.

 Distrib. Khasia hills; Naga hills; Burmah.
- 244. Pholidata rubra Lindl.

 Distrib. Sikkim; Khasia hills; Kachin hills; Upper Burma.
- 245. Cymbidium lancifolium Hook.

 Distrib. Nepal; Sikkim; Mishmi hills; Khasia hills; IndoChina, Japan; Ma'aya.
- 246 Cymbidium pendulum Swarts.
 Distrib. Sikkim; Bengal; Assam; Burmah; Andamans;
 Southern India; Malaya.
- 247. Phalænopsis Cornu cervi, Par. and Reichb. f. Distrib. Burmah; Malaya.
- 248. Aerides Fieldingii Lodd.
 Distrib. Sikkim; Assam; Kachin hills.
- 249. Aerides odoratum Lour.
 Distrib. Nepal; Sikkim; Khasia hills; Silhet; Chittagong;
 Burmah; South India; Indo-China; China; Malaya.
- 250. Renanthera Inschootiana Rolfe (No. 230). Fort Lungleh. Distrib. Assam.

- 251. Vanda teres Lindl.
 Distrib. Bengal; Assam; Burmah; Andamans.
- 252. Vanda cœrulea Griff.
 Distrib. Khasia and Jyntea hills.
- 253. Saccolabium papillosum Lindl.

 Distrib. Eastern Himalaya; Assam; Lower Bengal; Burmah.
- 254. Sarcanthus appendiculatus. Hook. f. Distrib. Sikkim; Assam; Burmah.
- 255. Cleisostoma bicuspidatum. Hook. f.
 Distrib. Sikkim; Khasia; Tenasserim.
- 256. Onithochilus fuscus. Wall.

 Distrib. Sikkim; Bhotan; Khasia; Assam; Kachin hills;

 Burmah.
- 257. Cypripedium villosum. Lindl. var. Boxalli. Distrib. Shan hills; Kachin hills; Moulmein.

LXIV.—SCITAMINEÆ.

- 258. Hemiorchis burmanica Kurs. (No. 207).

 In flower. Between Ridge Camp and Lungsin. Alt. 2,000 feet.

 Distrib. Khasia hills; Burmah.
- 259 Hedychium villosum Wall. (No. 120).
 In flower. Fort Lungleh.
 Distrib. Silhet; Assam; Khasia hills; Miki hills; Naga hills;
- Manipur; Burmah.

 260. Curcuma zedoaria Roscoe (No. 206).

 In flower. Between Ridge Camp and Lungsin. Alt. 2,000 feet.
 - Distrib. Bengal; Khasia; Assam; Chittagong; South and Central India; Malaya.
- 261. Amomum dealbatum Roxb. (No. 173).

 In flower. Fifteen miles South-East of Lungleh. Alt. 3,000 feet.
 - Distrib. Sikkim; Bengal; Khasia hills; Silhet; Naga hills; Assam; Chittagong; Burmah.
- 262. Alpinia malaccensis Roscoe (No. 115).
 In flower. Fort Lungleh.
 Distrib. Sikkim; Khasia hills; Assam; Chittagong; Burmah; South India; Malaya.

LXV.—AMARYLLIDEÆ.

263. Curculigo recurvata Dryand. (No. 218).

In flower. Fort Lungleh.

Distrib. Nepal; Sikkim; Bengal; Assam; Chittagong; Burmah; Ceylon; Malaya; China; Australia.

LXVI.—DIOSCOREACEÆ.

264. Dioscorea glabra Roxb. (No. 252).

In fruit. Demagiri. Alt. 500 feet.

Distrib. North-West Himalaya; Nepal; Sikkim; Bengal; Burmah; Malaya; South India.

265. Dioscorea bulbifera Linn. (No.——).

Grown from a tuber gathered near Fort Lungleh.

LXVII.—LILIACEÆ.

266. Smilax lanceæfolia Roxb. (No. 45).

In young fruit. Fort Lungleh.

Distrib. Sikkim; Khasia hills; Naga hills; Kachin hills; Manipur; Burmah.

267. Smilax Roxburghiana Wall. (No. 149).

In fruit. Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

Distrib. North-West Himalaya; Sikkim; Silhet; Cachar; Khasia hills; Kachin hills.

268. Dracæna ensifolia Wall. (No. 144).

In flower. Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

Distrib. Bhotan; Duphla hills; Silhet; Assam; Khasia hills; Naga hills; Kachin hills; Burmah.

269. Dracæna terniflora Roxb. (No. 263).

In flower. Between Ridge Camp and Lungsin. Alt. 2,000 feet.

Distrib. Silhet; Cachar; Khasia hills; Manipur; Chittagong; South India.

LXVIII.—COMMELINACEÆ.

270. Commelina nudiflora Linn. (No. 264).

In flower. Between Linchong and Demagici, Alt. 500=

Distrib. Cosmopolitan in the tropics.

LXIX.—PALMEÆ.

271. Pinanga gracilis Bl. (Nos. 117 and 118).
In fruit. Fort Lungleh.
Distrib. Sikkim; Bhotan; Khasia hills; Assam; Chittagong;
Burmah.

272. Caryota urens Roxb. (No. 56).
In leaf only. Fort Lungleh.
Distrib. Throughout the hotter parts of Asia.

273. Licuala peltata Roxb. (No. 262).
In flower. Fort Lungleh.
Distrib. Sikkim; Khasia; Assam; Silhet; Burmah;
Andamans.

274. Calamus tenuis Roxb. (No. 261).
In leaf only. Fort Lungleh.
Distrib. Tropical Himalaya; Bengal; Assam; Silhet; Chittagong; Burmah; Indo-China.

LXX.-AROIDEÆ,

275. Steudnera sp. (No. 267).

In flower. Between Ridge Camp and Lungsin. Alt. 1,000 feet.

276. Alocasia fallax Schott (No. 50).
In flower. Fort Lungleh.
Distrib. Sikkim; Khasia hills; Burmah.

277. Rhaphidophora calophyllum Schott (No. 15).
In flower. Fort Lungleh.
Distrib. Sikkim; Khasia hills; Burmah.

278. Rhaphidophora Hookeri Schott (No. 67).
In flower. Fort Lungleh.
Distrib. Sikkim; Duphla hills; Khasia hills; Garo hills;
Chittagong; Manipur; Upper Burmah.

279. Rhaphidophora glauca Schott (No. 266).
In flower. Fort Lungleh.
Distrib. Nepal; Sikkim; Bhotan; Duphla hills; Khasia hills;
Naga hills; Manipur.

280. Rhaphidophora decursiva Schott (No. 68).
In flower. Fort Lungleh.
Distrib. Sikkim; Khasia hills; Upper Burmah; South India;
Ceylon.

- 281. Pothos scandens Linn. (No. 265). In flower. Helio hills, Lungleh. Alt. 3,700 feet. Distrib. India; Indo China; Malaya; China.
- 282. Pothos Cathcarti Schott (No. 83).
 In flower. Fort Lungleh.
 Distrib, Nepal; Sikkim; Khasia hills; Naga hills; Assam;
 Kachin hills; Burmah.

LXXI.—CYPERACCÆ.

- 283. Kyllinga monocephala Rottb. (No. 278).

 Between Lungleh and Ridge Camp. Alt. 3,000 feet.

 Distrib. Throughout India and the Old World tropics.
- 284. Cyperus diffusus Vahl. (No. 167).

 Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

 Distrib. Throughout the tropics.
- 285. Scleria sumatrensis Rets. (No. —).

 Between Ridge Camp and Lungsin. Alt. 2,000-3,000 feet.

 Distrib. Bengal; Chittagong hill tracts; South India;

 Ceylon; Malaya; Nicobars; Java.

LXXII.-GRAMINEÆ.

The following species are only those which have been as yet worked out from the collection, and do not represent it completely:—

- 286. Panicum sarmentosum Roxb. (No. 166).

 Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

 Distrib. Assam; Silhet; Cachar; Khasia; Chittagong;

 Burmah; Indo-China; China.
- 287. Panicum plicatum Lamk. (No. 279):

 Between Lungleh and Ridge Camp. Alt. 3,000 (eet.

 Distrib. North-Western Himalaya; Sikkim; Shan hills;

 South India; Ceylon; Malaya; China.
- 288. Panicum pilipes Nees, and Arnott. (No. 133).

 Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

 Distrib. Sikkim Terai; Khasia hills; Burmah; Central and South India; Ceylon; Nicobars; Malaya; Indo-China; Madagascar; Australia.

- 289. Thysanolæna agrostis Nees. (No. 281).

 Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

 Distrib. North-Western Himalaya; Sikkim; Khasia hills;

 Behar; South India; Burmah; Nicobars; Malaya.
- 290. Imperata arundinacea Cyrill. (No. 208).
 Between Ridge Camp and Lungsin. Alt. 2,500 feet.
 Distrib. Cosmopolitan in the tropics.
- 291. Pogonatherum crinitum Trin. (No. 280).

 Between Ridge Camp and Lungsin. Alt. 2,500 feet.

 Distrib. Throughout India and Malaya; China; New Hebrides.

LXXIII.—LYCOPODIACEÆ.

2;2. Lycopodium setaceum Ham.

Fort Lungleh.

Distrib. Himalayas; Nilgherries; Ceylon; Borneo.

LXXIV.—SELAGINELLACEÆ.

293. Selaginella caulescens Spreng.

Between Ridge Camp and Lungsin. Alt. 2,000 feet.

Distrib. India; Ceylon; Indo-China; Malaya; China;

Japan; Philippines; New Guinea.

294. Selaginella Wallichii Spreng.

Between Ridge Camp and Lungsin. Alt. 2,000 feet.

Distrib. Eastern Himalaya; Malaya; Philippines; New Guinea.

LXXV.-FILICES.

295. Davallia polypodioides *Don.* var. strigosa of C. B. Clarke's Ferns of Northern India. Fort Lungleh.

Distrib. North-West Himalaya; Nepal; Sikkim; Khasia; Chittagong; Assam; South India; Malaya; China; Japan; Polyaesia; Tropical America.

296. Onychium auratum Kaulf. Fort Lungleh.

Distrib. Nepal; Sikkim; Assam; Chitt agong; Malaya.

297. Pteris quadriaurita Rets.

Fort Lungleh.

Distrib. Punjab; Assam; Chittagong; South and West India; Ceylon; Malaya.

298. Pteris biaurita Linn.

Fort Lungleh.

Distrib. North-West Himalaya; Sikkim; Khasia; South and West India; Ceylon; Malaya; China; Tropical Africa and America.

200. Blechnum orientale Linn.

Fort Lungleh.

Distrib. Nepal; Sikkim; Khasia hills; Chittagong; South India; Ceylon; Malaya; China; Polynesia; Australia.

300. Asplenium Nidus Linn.

Fort Lungleh.

Distrib. Nepal; Sikkim; Assam; Chittagong; South India; Ceylon; Malaya; Polynesia.

301. Asplenium bantamense Baker.

Fifteen miles.

South-East of Lungleh. Alt. 3,000 feet,

Distrib. Khasia; Cachar; Chittagong; South India; Malaya; China.

302. Asplenium sylvaticum Presl.

Fifteen miles South-East of Lungleh. Alt. 3,000 feet. Distrib. Burmah; Malaya; South India; Ceylon; Mauritius.

303. Asplenium multicaudatum Wall.

Fort Lungleh.

Distrib. Nepal; Sikkim; Bhotan; Khasia; Chittagong.

304. Didymochlæna lunulata Desv.

Fort Lungleh.

Distrib. Assam; Burmah; Malaya. The discovery of this fern'goes to show that the doubt thrown upon the authenticity of Jenkin's Assam specimens in the Calcutta Herbarium, is not well founded.

305. Nephrodium glandulosum J. Sm.

Fort Lungleh.

Distrib. North-Western Himalaya; Assam; Chittagong; Burmah; Malaya; Philippines.

306. Nephrodium molle Desv.

Fort Lungleh.

Distrib. Himalaya; Chittagong; Burmah; Malaya; South and West India; Africa; South America; West Indies; Australia.

307. Nephrodium parasiticum, C. B. Clarke.

Fort Lungleh.

Distrib. Throughout India.

308. Nephrodium vastum Baker.

Between Lungleh and Tuichong. Alt. 2.000-3.000 feet. Distrib. East Bengal; Mishmi; Khasia; Chittagong; Burmah: Malaya.

309. Polypodium urophyllum Wall.

Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

Distrib. North-Western Himalaya; Sikkim; Bhotan; Chittagong; South India; Ceylon; Malaya; North Australia; Polvnesia.

310. Polypodium multilineatum Wall.

Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

Distrib. North-Western Himalaya; Sikkim; Chittagong; South India; Malaya.

311. Polypodium Heteractis Mett.

Helio hill, Lungleh. Alt. 3,700 feet.

Distrib. Sikkim; Bhotan; Khasia. 312. Polypodium quercifolium Linn.

Fort Lungleh.

Distrib. Throughout India; Malaya; South China; Australia.

313. Polypodium normale Don.

Fifteen miles South-East of Lungleh. Alt. 3,000 feet.

Distrib. Nepal; Sikkim; Bhotan; Khasia hills.

314. Polypodium hemionitideum Wall. Fort Lungleh.

Distrib. Nepal; Sikkim; Bhotan; Khasia; Chittagong; South India; Malaya; China.

315. Acrostichum virens Wall,

Fort Lungleh.

Distrib. Chittagong hill tracts.

316. Lygodium pinnatifidum Sw.

Fort Lungleh.

Distrib. North-Western Himalaya; Nepal; Sikkim; Silhet; Khasia hills; Assam; Kachin hills; Chittagong and Burmah; South and Western India; Andamans; Malaya.

317. Angiopteris evecta Hoffm.

Fort Lungleh.

Distrib. Nepal; Sikkim; Bhotan; Chittagong; South India; Ceylon; Malaya; Australia; Madagascar.

The following table	gives	a	synoptic	view	of	the	systematic
character of the collection	ı :						

Phanerogams						72				215				291
Dicotyledons					62				171				208	
Polypetalæ				33				73				87		
Thalamifloræ			13				21	-			22			
Discifloræ			8		- 1		19			1	24			
Calycifloræ			12				33				41	-		
Gamopetalæ				9				63				78		
Incompletæ				Io				35				43		
Monocotyledo	ns				10				44				83	-
Cryptogams		•				3.				13				26
TOTAL	s		Nat.	ord	ers	75	Ge	nera		228		Spec	ies	317

Amongst the Phanerogams the Natural order Orchidaceæ comes first with 49 species, next Filices with 23 species, Leguminosæ with 18 species, Urticacæ with 15 species, Rubaceæ with 14, Euphorbiaceæ with 13 [species, Acanthaceæ with 11 species, Compositæ with 10 species. Of the remainder there are one order with 8 species, one with 7 species, ten with 6 species, three with 5 species, nine with 4 species, ten with 3 species, thirteen with 2 species, twenty.eight with 1 species.

