

ASIA

QK

490

.B8

S5

1922

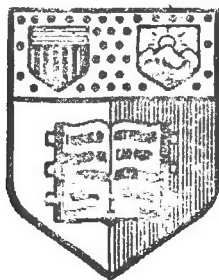
SIMPLE KEY TO

THE HUNDRED COMMON

TREES OF BURMA

PRICE \$5.00

CORNELL UNIVERSITY  
LIBRARY  
ITHACA, N.Y. 14853



John M. Echols Collection  
on Southeast Asia  
KROCH LIBRARY

CORNELL UNIVERSITY LIBRARY



3 1924 087 829 960



## Cornell University Library

The original of this book is in  
the Cornell University Library.

There are no known copyright restrictions in  
the United States on the use of the text.

A SIMPLE KEY  
TO  
ONE HUNDRED COMMON TREES  
OF  
BURMA

COMPILED BY  
C. B. SMALES  
CONSERVATOR OF FORESTS



RANGOON  
SUPERINTENDENT, GOVERNMENT PRINTING,  
1922



## FOREWORD

THIS Key, based on an "artificial Key" published by Mr. H. H. Haines, Conservator of Forests, has been compiled for use by those persons who, though unversed in botanical lore, desire to recognise easily the trees they may encounter in the forests of Burma, and treats more especially of those species which are in sufficient quantity to attract commercial attention.

A purely arbitrary limit of one hundred having been adopted, it is possible that a tree not in the list might satisfy the requirements of the Key, based as it is mainly on the leaves alone; so to make identification more certain, a short description of each species is included, supplementing the facts given in the Key itself.

The use of botanical terms has been avoided as far as possible, though the possession of a small hand lens is assumed. Some terms have been used, however, the avoidance of which would entail a long and perhaps too indefinite periphrasis, and these are explained in the Glossary.





## GLOSSARY

*Alternate*.—The position of leaves which arise at different levels.

*Bipinnate*.—Of a branched leaf axis where the branches are themselves branched again.

*Bract*.—A leaf-like structure generally associated with a flower.

*Calyx*.—The outermost ring of organs, forming the envelope of a flower.

*Cordate*.—Shaped like the ace of hearts, the stalk being at the broad end.

*Crenate*.—With rounded teeth, scalloped.

*Digitate*.—With separate leaflets spreading from one point.

*Entire*.—Not toothed or cut at the edge.

*Glabrous*.—Without any hairs.

*Gland*.—A cell or structure usually containing a secretion.

*Glaucous*.—Covered with a grey-green bloom.

*Imparipinnate*.—Pinnate, with an odd terminal leaflet.

*Interpetiolar*.—Where two generally united stipules are situated between the bases of opposite leaves. They may be reduced to a mere raised line.

*Lanceolate*.—Broader in the lower half, and narrowing to a point above; spear shaped.

*Lobed*—(i) of a leaf—cut less than half way down into rounded segments.

(ii) of a fruit—with a few shallow furrows forming rounded segments.

*Marginal Vein*.—A vein near the leaf edge joining the outer ends of the secondary nerves.

- Opposite*.—The position of leaves which arise at the same level, at 180 degrees to each other.
- Palminerved*.—With the primary veins radiating from the top of the leaf stalk.
- Pari-pinnate*.—Pinnate with no odd leaflet at the end.
- Penninerved*.—With one central vein and the secondary ones branching from it.
- Petals*.—The inner ring of organs forming the envelope of a flower. (At times the outer ring or calyx may be absent.)
- Pinnate*.—Where two or more leaflets spring from each side of the main axis of the leaf.
- Sepals*.—The parts of the calyx.
- Sessile*.—Without a stalk.
- Simple*.—With only one blade on the stalk, though it may be more or less cut or lobed.
- Stipules*.—Paired processes springing from the base of the main leaf stalk.
- Stipel*.—A stipule on a leaflet-stalk.
- Whorl*.—When branches or other organs radiate from one point.

#### ABBREVIATIONS USED IN KEY.

L.—Leaves.

Fl.—Flowers.

Fr.—Fruit.

# KEY

**A. L. simple, cf. pp. 12, 13.**

**I. L. opposite, cf. p. 8.**

(i) Interpetiolar stipules present.

(a) Buds long.

L. soft. Fl. in balls.

**78. Ma-u.**

L. hard. Fl. in branched heads.

**60. Maniawga.**

(b) Buds broad.

\**Fl. in balls.*

†Fl. heads one to three.

◊Fr. fleshy.

**77. Mau-kadon.**

◊◊Fr. dry.

L. heart-shaped.

**79. Hnaw.**

L. oblong.

**81. Thitpayaung**

††Fl. heads numerous.

**80. Binga.**

\*\**Fl. in branching plumes.*

**82. Kuthan.**

(ii) No interpetiolar stipules.

(a) Glands present.

\**As translucent dots in l.*

**66. Thabye.**

\*\**As scales on under side of l.*

Leafbase rounded.

**91. Kyunbo.**

Leafbase wedge-shaped

**90. Kyun.**

\*\*\**Glands near base of leaf*

L. oblong.

**63. Taukkyan.**

L. broad, cordate.

**92. Yemane.**

(b) No glands.

*\*Small tree.*

†Nerves numerous and parallel.

Nerves indistinct.

Nerves conspicuous.

††Nerves few and arching.

*\*\*Large tree.*

†L. large, 6"—10"

L. cordate at base.

L. not cordate.

††L. medium, 3"—6".

L. hairless.

L. velvety.

†††L. small, 2"—4."

II. *L. alternate*, cf. p. 7.

(i) Margins entire, cf. p. 11.

(a) *L. palminerved.**\*Juice milky.**\*\*Juice not milky.*

†Old l. glabrous underneath.

L. harsh above.

L. smooth above.

††Old l. velvety or glaucous beneath.

°L. 2-lobed.

Pod with wavy lines.

Pod smooth.

°°L. not lobed.

7. Gangaw.

6. Ponnyet.

71. Kon-pyinma

74. Myaukngo.

70. Pyinma.

69. Ananbo.

73. Leza.

72. Zaungbale.

99. Nyaung.

84. Hmaikchau

17. Letkok.

53. Palan.

52. Chinbyit.

31. Zi.

- (b) L. penninerved.
- \**Juice milky.* 100. Myauklok.
- \*\**Juice not milky.*
- †Old l. velvety  
beneath.
- °L. large. over 6"  
Black juice in 36. Thitsi.  
bark.
- Juice watery. 37. Lunbo.
- Juice resinous. 8. Kanyinbyu.
- °°L. not over 6".
- §Old l. dull above. 3. Thabutgyi.
- §§Old l. shining  
above.
- °L. oval.
- Nerves nu- 96. Seitchi.  
merous and  
parallel.
- Two glands 64. Panga.  
on stalk.
- βL. narrow.
- Nerves nu- 83. Te.  
merous and  
irregular.
- Nerves few. 65. Yon.
- ††Old l. hairless  
beneath.
- ‡Stalks short,  
½" or under.
- °L. silvery 21. Pinle-kanazo  
beneath.

- °°L. not silvery beneath.  
L. suddenly pointed at tip. **97. Pyaukseik.**  
L. gradually narrowed into tip. **11. Thingan.**  
L. blunt at tip. **13. Thitya.**
- ‡‡Stalks long, over  $\frac{1}{2}$ ".  
°Base of l. rounded or cordate.  
§Twigs marked with ring-scars.  
L. base cordate. **10. In.**  
L. base rounded. **9. Kanyin-ni.**  
§§Twigs without ring-scars. **12. Ingyin.**
- °°Base of l. wedge-shaped.  
§L. clustered at ends of twigs, deciduous.  
Bark blue-grey, smooth. **61. Thitsein.**  
Bark brown, fissured. **62. Lein.**  
§§L. not clustered: evergreen.  
° Stalks very slender. **35. Taungthayet.**  
° Stalks stout.  
Buds velvety. **33. Tawthayet.**  
Buds glabrous. **34. Sinninthayet.**

(ii) Margins toothed, waved or lobed, cf. p. 8.

(a) Penninerved.

\**L. large, over 6"*.

†Nerves parallel, ending in teeth.

L. produced right down the stalk. 2. Zinbyun.

L. ending some distance above end of stalk. 1. Thabyu.

††Nerves arching into marginal vein. 68. Bambwe.

\*\**L. under 6"*.

†Juice milky. 98. Okhne.

††Juice not milky.

°Bark greenish white. 75. Myaukchaw.

°°Bark dark.

Stem thorny. 5. Naywe.

Stem not thorny. 67. Kyi.

(b) Palminerved.

\**Large tree.*

†L. lobed.

Lobes 5, entire. 18. Wetshaw.

Lobes numerous, toothed. 20. Shawni.

††L. not lobed. 76. Thitpok.

**\*\*Medium tree.**

†Thorny. 31. Zi.

††Unarmed.

§L. cordate.

○L. lobed. 14. Dwabok.

○○L. not lobed.

Margins toothed. 23. Dwani.

Margins waved. 24. Petwun.

§§L. not cordate.

3 basal veins. 25. Myatya.

5—7 basal veins. 22. Nagye.

**B. L. of three leaflets, cf. pp. 7, 13.****I. L. opposite.**

Leaflets stalked. 94. Kyetyo.

Leaflets nearly sessile. 95. Kyetyo.

**II. L. alternate.****(i) L. digitate.**

L. gland-dotted, thorns. 26. Okshit.

L. not gland-dotted, unarmed. 4. Kadet.

**(ii) L. pinnate.**

Prickles on branches. 41. Kathit.

Unarmed. 42. Pauk.



**C. L. with many leaflets, cf. pp.  
7, 12.**

**I. L. opposite.**

- (i) L. digitate. **93. Tauksba.**
- (ii) L. pinnate.
- (a) Leaflets 3—5 pairs.
- \*Leaflets short-pointed.*
- Leaflets stalked, glabrous. **85. Thakut.**
- Leaflets almost sessile,  
velvety. **89. Thande.**
- \*\*Leaflets long-pointed,  
glabrous.* **87. Thande.**
- (b) Leaflets 2—3 pairs.
- Leaflets, large, 6"—12". **86. Petthan.**
- Leaflets, small, 3"—6". **88. Thande.**

**II. L. alternate.**

- (i) L. digitate, cf. p. 15.
- (a) Prickles on young stem  
and branches.
- Buttressed tree on level **16. Letpan.**  
ground.
- Unbuttressed tree on **15. Didu.**  
rising ground.
- (b) Unarmed. **19. Shawbyu.**
- (ii) L. pinnate, cf. p. 15.
- (a) L. paripinnate.
- \*Leaflets small, under 3".*
- L. glabrous. **51. Mezali.**
- L. velvety. **50. Ngushwe.**

**\*\*Leaflets large, 4"—8".**

†L. glabrous.

○Leaflets sessile.

**32. Gyo.**

○○Leaflets stalked.

4—8 pairs, oval,  
base symmetrical.

**49. Ngu.**

6—16 pairs, long  
pointed, base one-  
sided.

**30. Thitkado.**

††L. velvety.

**29. Yinma.**

**(b) L. imparipinnate.**

**\*Leaflets entire.**

†Leaflets opposite.

○Bark rough.

Leaflets 6—16 pairs,  
stalked  $\frac{1}{2}$ ".

**30. Thitkado.**

Leaflets 3—6 pairs,  
short stalked  $\frac{1}{8}$ ".

**38. Nabe.**

○○Bark smooth.

Leaflets aromatic,  
marginal vein.

**39. Gwe.**

Leaflets stipellate,  
no marginal vein.

**40. Thinwin.**

††Leaflets alternate.

○Dark red juice in bark.

**48. Padauk.**

○○No red juice

<sup>a</sup> Leaflets pointed.

2—4 pairs, large,  
2"—5", glaucous  
beneath.

**46. Madama.**

6—8 pairs, large,  
3"—6", nearly  
opposite.

**44. Thitpok.**

$\beta$  Leaflets blunt,  
small, 1"—2"

§Twigs glabrous,

Leaflets 3—4  
pair, shining  
dark green.

43. Yindaik.

Leaflets 5—10  
pair, light  
green.

45. Tamalan.

§§Twigs velvety,  
leaflets 4—5  
pair,\* light  
green.

47. Thitsanwin.

\*\**Leaflets toothed or cre-  
nate.*

3—4 pairs on stalks up  
to  $\frac{2}{3}$ ".

27. Thadi.

6—12 pairs, nearly ses-  
sile.

28. Chinyok.

(iii) L. bipinnate, cf. p. 13.

(a) Main l. stalk with only  
one pair of pinnae.

54. Pyinkado.

(b) Main l. stalk with several  
pairs of pinnae.

\**Thorny.*

Prickles hooked: pod  
glabrous.

55. Sha.

Prickles straight: pod  
velvety.

56. Tanaung.

**\*\*Unarmed.**

†Leaflets with midrib  
near upper edge.

Leaflets numerous,  
6—20 pr.  $\frac{1}{2}$ "—1".

Leaflets few, 6—8 pr.  
 $1$ "— $1\frac{1}{2}$ ".

††Leaflets with midrib  
near lower edge.

**58. Thitmagyi.**

**57. Kokko.**

**59. Sit.**

## SHORT DESCRIPTION OF SPECIES.

---

### 1. *Dillenia indica*. *Thabyu*.

Medium tree, spreading, evergreen, found near streams. Twigs velvety. L. dark green, 12" long, stalk hairy, channelled but not winged. Fl. white. Fr. green 3"—5" diameter.

### 2. *Dillenia pentagyna*. *Zinbyun*.

Tree with thick twigs marked by large scars of fallen l.; young l. silky, sharply toothed, the veins very conspicuous, straight, numerous and parallel; base of l. narrowed into a wing to the stalk. Fl. 1", yellow, their stalks clustered on the bare branches. Fr. enclosed in fleshy sepals, yellow-green,  $\frac{2}{3}$ " diameter.

### 3. *Milium velutina*. *Thabutgyi*.

Small tree, all velvety, branches horizontal. L. with rounded base, on short stalks in flat sprays. Ripe fr. stalked in round heads.

### 4. *Crataeva Roxburghii*. *Kadet*.

Small tree with white spots on twigs. L. with three leaflets jointed at tip of main stalk, leaflets entire, glaucous beneath with conspicuous arching veins. Fl. numerous, cream coloured, stamens long and ovary on a very long stalk.

### 5. *Flacourtia cataphracta*. *Naywè*.

Small tree, stem armed with branching spines. L. with scalloped edges; lowest pair of veins basal. Fr. round,  $\frac{1}{2}$ ".

**6. Calophyllum Inophyllum.** *Pônnyet.*

Small tree, with thick leathery oval dark green l., with very numerous parallel veins at a wide angle with the midrib. Fl. white, scented, 1".

**7. Mesua ferrea.** *Gangaw.*

Medium tree, evergreen; young l., red, older green with whitish underside, narrow. Fl. white, 3" across with a mass of scented yellow stamens in the middle.

**8. Dipterocarpus alatus.** *Kanyin-byu.*

Tall tree with high crown and horizontal branches, evergreen, bark with irregularly wandering furrows. Twigs velvety. Buds enclosed in large sheathing bracts. L. velvety, with stalks up to 1". Fl. pink and white striped. Fr. with two long thin wings at top and five wings on the rounded portion. Grows on low ground.

**9. D. turbinatus.** *Kanyin-ni.*

As No. 8 but twigs usually glabrous with finely velvety buds. Leaf stalks longer, up to 2"; l. glabrous and rounded portion of fr. not angled. Grows on rising ground.

**10. D. tuberculatus.** *In.*

Tree deciduous, generally in pure forest on laterite or sand. Bark deeply and regularly fissured, grey. Buds enclosed in large red often velvety stipules. L. cordate, broader than in No. 9, harsh, with raised nerves. Fr. with five angles at top, two long thin wings; rounded portion smooth.

**11. Hopea odorata.** *Thingan.*

Tall tree in moist forest, evergreen. Bark finely fissured, dark brown. L. sometimes with

small galls in angles of nerves. Fl. small, scented, white, in one-sided sprays; petals rolled from one edge. Fr. two-winged.

**12. Pentacme suavis.** *Ingyin.*

Tree, generally in dry situations; bark heavily fissured, ashy grey. L. cordate, long stalked, pointed. Stipules  $\frac{1}{2}$ " long, cordate, not embracing the twig. Fl. yellow, before the l., scented, in large branching glabrous plumes. Fr. with two large and three smaller wings, which are narrowed at the base showing the fruit. L. turn bright red before falling.

**13. Shorea obtusa.** *Thitya.*

Tree often associated with No. 12. Bark smooth, brown. L. shorter stalked, straight sided, blunt, smaller than in No. 12, with wedge-shaped base. Fl. greenish, not scented, velvety. Wings of fr. two large and three small, covering up the fruit. L. turn yellow before falling.

**14. Kydia calycina.** *Dwabok.*

Small tree, twigs and l. velvety. L. round but angled, shallowly toothed as well, long stalked. Gland on main nerves beneath. Fl. showy pink and white. Fr. supported by persistent velvety bracts,  $\frac{3}{4}$ " across, hanging in large masses long on the tree.

*Semenia*  
**15. Bombax insigne.** *Didu.*

Large tree, leafless for a long period, bark light grey, soft, often prickly on younger parts. Leaflets short stalked, glaucous below and not so long pointed as No. 16. Fl. white with very numerous stamens. Fr. a large glabrous brown pod filled with silky floss.

**16. *Bombax malabaricum.* Letpan.**

Large spreading tree like No. 15, but generally with big buttresses at base, and more prickles on the stem when young. Branches horizontal in whorls up to middle age; leaflets long stalked, green below and long pointed. Fl. crimson or pink. Stamens only about 70, united in bundles. Pod velvety.

**17. *Sterculia alata.* Letkôk.**

Large tree. L. cordate, large, with prominent veins beneath. Fl. brown, velvety. Fr. stalked, woody, 5 inches diameter; seeds winged.

**18. *Sterculia colorata.* Wetshaw.**

Buds velvety. L. five-lobed, broad, long stalked, lobes entire. Fl. velvety, brick red on red stalks, before the 1. Fr. flat, papery, with two seeds on their edges.

**19. *Sterculia foetida.* Shaw-byu.**

Twigs thick, glabrous. L. digitate, 5—9 leaflets, sessile or nearly so. Fl. velvety especially inside, red or purple with an offensive smell. Fr. woody, glabrous, scarlet with black seeds. Conspicuous in hot weather.

**20. *Sterculia villosa.* Shawni.**

Bark grey, used for ropes. Twigs velvety, with large scars. L. velvety beneath, deeply lobed and toothed, broad. Fl. pendulous. Fr. not stalked, pod-shaped, woody, velvety, scarlet.

**21. *Heritiera Fomes.* Pinlè Kanazo.**

Tree in pure forest within tidal limits, with flat thin buttresses at base. Bark silvery grey. Roots with flat processes growing up through the mud.



L. evergreen, leathery, silvery beneath, with minute brown scales. Fr. brown, keeled.

**22. Pterospermum semisagittatum.** *Nagye.*

Medium tree. Stem fluted. Bark red with flakes falling off. Twigs and veins of l. rusty velvety. L. grey-velvety beneath with very unequal sided base, long lanceolate, very shallowly toothed or waved. Fl. white with brown mossy bracts. Fr. woody, brown-velvety.

**23. Eriolaena Candollei.** *Dwani.*

Medium tree. Twigs velvety. L. long stalked, cordate, teeth rather rounded, velvety beneath. Fl. yellow, with three velvety toothed bracts below the velvety sepals. Fr. oval, ribbed, pointed,  $1\frac{1}{2}$ ".

**24. Berrya Ammonilla.** *Petwun.*

Bark smooth, light grey. L. often velvety, cordate, margin waved, hardly lobed. Fr. with persistent calyx of six lobes with conspicuous nerves; breadth up to 2".

**25. Grewia Microcos.** *Myatya.*

Small tree, twigs and leaf-stalks hairy. L. with rounded base and long points, teeth very shallow, glabrous except on veins. Fl. at ends of branches, yellow; petals narrowed at base, often split. Fr. round, not lobed,  $\frac{1}{4}$ " across.

**26. Aegle Marmelos.** *Ókshit.*

Small thorny tree. Twigs light grey, glabrous. L. with three leaflets, middle one longest; aromatic, with wavy edges. Fr. a hard shelled globe, 5" diameter. Seeds embedded in orange gummy pulp.

- 27. Protium serratum (syn. *Bursera serrata*).** *Thadi.*  
Evergreen; l. pinnate, leaflets opposite, velvety along the nerves, generally toothed; conspicuously net veined. Fl. small, green, appearing with the young l. Fr. round,  $\frac{3}{4}$ " , red, slightly lobed.
- 28. Garuga pinnata.** *Chinyók.*  
Bark light grey, smooth; twigs velvety; old l. turning bright crimson; leaflets opposite, velvety, often forming crimson galls, teeth often rounded. Fl. before the leaves. Fr. round, yellow-green,  $\frac{3}{4}$ " diameter, often lobed.
- 29. Chukrasia velutina.** *Yinma.*  
Bark straight-fissured, dark brown. Twigs rusty velvety. Leaflets 5—12 pair, alternate, bases unequal, velvety above and below. Fr. very dark brown, oval,  $1\frac{1}{4}$ " long and wide, glabrous; seeds winged at one end.
- 30. Cedrela Toona.** *Thitkado. Taungdama. Tawtama*  
Aromatic wood. Twigs glabrous with hairy buds. L. large, up to 2 ft., sometimes with a terminal leaflet. Leaflets numerous, nearly opposite, generally entire, glabrous. Fl. white, scented, at ends of branches. Fr. dry, smooth, 1" long and  $\frac{1}{3}$ " wide; seeds winged at both ends.
- 31. Zizyphus Jujuba.** *Zi.*  
Small tree with pairs of prickles on branches, one hooked, the other straight. L. small, nearly round, dark green and glabrous above, brown or grey-velvety beneath, usually finely toothed. Fr. edible, round, generally red,  $\frac{1}{2}$ " to  $\frac{3}{4}$ " diameter.
- 32. Schleichera trijuga.** *Gyo.*  
Bark ashen grey. Very young twigs powdery, young l. red; leaflets three pairs, top pair largest, opposite, entire, glabrous.

**33. *Mangifera caloneura.* Tawthayet.**

L. straight sided, conspicuously net veined, stalks 1". Fl. bunches velvety. Fr. rounded, 2" long.

**34. *Mangifera sylvatica.* Sinninthayet.**

L. lanceolate; longer than in No. 33; stalks 1"—3". Fl. bunches glabrous. Fr. flattened.

**35. *Swintonia floribunda.* Taungthayet.**

Large tree. L. lanceolate, 6"; pink when young, stalk very slender, 1"—1½". Fl. yellow, in large glabrous branched plumes. Fr. dry with five persistent petals.

**36. *Melanorrhoea usitata.* Thitsi.**

Medium tree with rounded crown. Bark ashen grey, flaky. Twigs velvety. L. with veins at a wide angle with midrib, stalk thick, angled. Fl. in large creamy masses. Fr. red, stalked, with five persistent spreading enlarged petals.

**37. *Buchanania latifolia.* Lunbo.**

Medium tree. Bark grey, split into small square plates. L. leathery, velvety beneath. Fr. ½" diameter, round, black.

**38. *Odina Wodier.* Nabè.**

Bark dark coloured, shallow fissured; tree very early deciduous, but stalks of fr. remaining long on ends of branches; very young twigs and l. powdery velvety, soon glabrous. Inflorescence pendulous. Fr. black, ½" long.

**39. *Spondias mangifera.* Gwe.**

Bark smooth, soft, light grey. Twigs glabrous, thick. Leaflets elliptic, suddenly-pointed, 3"—6" long, glabrous; veins conspicuous, numerous and parallel with well-marked marginal vein.

Inflorescence erect. Fr. an edible plum  $1\frac{1}{2}$ ", pendent on long stalks ; stone fibrous.

**40. *Millettia pendula.*** *Thinwin.*

Medium tree. Bark smooth with large white patches. Twigs silky. Leaflets three pairs, generally glabrous, stalks thick. Fl. white. Pod flat, woody, brown with white spots, pointed at both ends, not winged ; 1—3 seeds.

**41. *Erythrina suberosa.*** *Kathit.*

Medium tree. Bark very thick, corky, yellowish grey, deeply fissured. Twigs silky. L. with a distinct axis above the point at which the lateral leaflets are inserted. Leaflets silvery-velvety beneath, margins entire or wavy, stipels glandular, glabrous. Fl. scarlet, before the l. Pod narrow, 3"—4" long ; 2—4 seeds.

**42. *Butea frondosa.*** *Pauk.*

Medium tree. Bark giving a red gum. Twigs velvety. L. velvety, dark green ; leaflets rhomboid, stipels pointed, hairy. Fl. silky, orange red on short black velvety nodes on branches, before the l., but old l. often remaining on other parts of tree. Pods at first green, 6" by  $1\frac{3}{4}$ " with one seed at upper end.

**43. *Dalbergia cultrata.*** *Yindaik.*

Cylindrical crown with short branches. Leaflets rounded, sometimes lobed at the tip. Fl. small, white or pink in one-sided sprays, with the young l. Pod 1"—4" long, flat, 1—2 seeds, blunt at both ends.

**44. *Dalbergia Kurzii.*** *Thitpók.*

Twigs stout, glabrous. L. large, glabrous. Fl. white and purple in large velvety masses at ends

of branches, before the l. Pod 3"—5" long, net veined, 1—2 seeded, swollen over seeds.

**45. Dalbergia Oliveri.** *Tamalan.*

Leaflets numerous, glabrous, tips variable from bluntly pointed to lobed. Fl. white, small, in large velvety plumes, with the young l. Pod 3"—4" long, 1—2 seeded, pointed at both ends, veined and much thickened over the seed.

**46. Dalbergia ovata.** *Madama.*

Medium tree. Twigs glabrous. Leaflets broad, whitish beneath, glabrous. Fl. white,  $\frac{1}{3}$ " long, in much branched bunches, with the l. Pod 1"—3" long, thin, flat, 1—3 seeded, net veins inconspicuous.

**47. Dalbergia paniculata.** *Thitsanwin. Tabauk.*

Bark reddish brown, flaky, stem fluted. Leaflets rounded, sometimes indented at tip, velvety along midrib. Fl. white, small, in brown silky bunches, with the l. Pod 2"—3", thin, pointed at both ends, 1—3 seeded.

**48. Pterocarpus macrocarpus.** *Padauk.*

Bark smooth, yellowish-brown with fine black lines. Twigs velvety. Leaflets 3—4 pairs, velvety. Fl. yellow, scented. Pod flat, circular,  $2\frac{1}{2}$ " across, one-seeded, velvety.

**49. Cassia Fistula.** *Ngu.*

Small tree, bark of young stems smooth, yellow-grey. Twigs silky. Leaflets 3" to 7" long, glabrous, veins conspicuous. Fl. yellow in large drooping bunches. Pod pendent, black, cylindrical, 2—3 feet long.

**50. *Cassia renigera*. Ngushwe. Nguzat.**

Small tree, twigs velvety; leaflets numerous, 1"—2" long, velvety on both surfaces, straight-sided, tip rounded with a short bristle. Fl. pink, in leafy bunches along the branches. Pod same as No. 49 but only 15 to 18 inches long.

**51. *Cassia siamea*. Mèzali.**

Medium tree. Leaflets numerous, six to ten pairs, elliptic, tipped with a short bristle. Fl. yellow in erect velvety bunches at ends of branches. Pod flat, velvety, 4"—10" long by  $\frac{1}{2}$ " wide.

**52. *Bauhinia malabarica*. Chinbyit.**

Small tree, evergreen. Bark smooth. Twigs velvety; l. dark green, generally whitish beneath, not deeply lobed. Fl. white, small, petals all equal, bunches often branched. Pod thin, flat, only slightly curved, conspicuously marked with wavy veins.

**53. *Bauhinia racemosa*. Palan.**

Small tree, deciduous. Bark rough. Twigs velvety. L. lobed, 1"—1 $\frac{1}{2}$ " long, velvety beneath. Fl. white, petals unequal, bunches not branched and generally longer than in No. 52. Pod thick, curved, smooth.

**54. *Xylocarpus dolabriformis*. Pyinkado.**

Bark yellowish-grey, with rounded irregular flakes. Twigs thick, rusty-velvety. Leaflets pointed, two to six pairs, with glands at the junctions of pinnae. Fl. yellow, in globose heads, before the l. Pod flat, woody, yellowish green, rather curved, 5"—6" long, taking a year to ripen, opening explosively.

**55. Acacia Catechu.** *Sha.*

Medium tree with thin crown. Bark dark coloured, with long, vertical, shallow fissures. Twigs purple, glabrous, often armed with pairs of hooked prickles at the base of l. L. small, nearly glabrous, with numerous small leaflets  $\frac{1}{5}$ " long; a gland on main stalk near base and sometimes others at junctions of main pinnae. Fl. in yellow tassels. Pod thin, brown, narrow, glabrous, 2"—5" long and  $\frac{3}{8}$ " broad.

**56. Acacia leucophloea.** *Tanaung.*

Medium tree, often with umbrella shaped crown. Bark when young yellow-grey, smooth; when old dark coloured and deeply fissured. Spines straight, long. Leaflets not so numerous as in No. 55, often grey-green, velvety, shining glands at junctions of primary pinnae. Fl. yellowish-white in balls. Pod 4"—5" by  $\frac{3}{8}$ ", light brown, velvety.

**57. Albizzia Lebbek.** *Kokko.*

Bark dark ashy-grey, rough with rounded flakes. Twigs velvety. L. often hairy. Fl. white, stalked, in heads on stalks 2"—4" long. Pod thin, straw-coloured, glabrous, 8"—12" long by 1"—2" broad, long persistent on tree. Seeds  $\frac{1}{2}$ ". Glands on leafstalks at all junctions on main axis.

**58. Albizzia odoratissima.** *Thitmagyi.*

Bark yellowish-grey. Twigs velvety. Leaflets sometimes hairy. Fl. yellow, not stalked, in heads with stalks only up to  $1\frac{1}{2}$ " long. Pod brown, 6"—8" by  $1\frac{1}{2}$ ", sometimes hairy. Seeds  $\frac{1}{3}$ ". Two glands on leaf-stalk, one near base and another between top pair of main pinnae.

**59. Albizzia procera.** *Thitpyu. Sit.*

Tree generally on moist ground. Bark yellowish-white when young. Twigs white and silky. Leaflets large, minutely hairy, 6—10 pairs, pale beneath. Pod brown, 4"—6" by  $\frac{1}{2}$ "—1". One large gland near base of main axis of leaf, none at primary junctions.

**60. Carallia lucida.** *Maniatwga.*

Bark smooth. Branches spreading, regular, twigs angular. L. evergreen, leathery, shining, veins numerous, joining near margin. Fl. in small regularly branching bunches in angle of leaf stalk. Fr. small, round.

**61. Terminalia belerica.** *Thitsein.*

Bark smooth, grey with a lavender tinge. Twigs rusty-velvety. Foliage dense. L. long stalked, generally broader in upper half of leaf. Fr. round, 1", fleshy, grey-velvety.

**62. Terminalia pyrifolia.** *Lein.*

Straight tree with thin crown. Twigs glabrous. L. long stalked. Fr. dry, two winged, 1"—2" broad.

**63. Terminalia tomentosa.** *Taukkyan.*

Tree, generally on clay soil, bark ashen grey, very deeply fissured, forming oblong flakes. Twigs rusty-velvety. L. occasionally not quite opposite, generally velvety beneath; two pear shaped glands on midrib on underside. Fr. five winged, wings striped horizontally.

**64. Terminalia tomentella.** *Panga.*

Bark very dark coloured, finely fissured. Twigs brown-velvety. L. broad oval, with two glands on stalk, venation conspicuous. Fr. round, rather pear-shaped, yellow, tasting of tannin.



**65. Anogeissus acuminata.** *Yón.*

Bark dark grey, almost smooth, with rounded pustules on lower parts. Twigs silky, drooping. L. with pellucid dots. Fl. and fr. in small round heads on stalks one inch long.

**66. Eugenia spp.** *Thabye.*

Trees, generally evergreen, with shining leathery glabrous l. with pellucid dots and numerous parallel veins joined by a vein near the margin, aromatic when crushed, often red when young. Fl. whitish with very numerous stamens. Fr. a purple berry.

**67. Barringtonia acutangula.** *Kyi.*

Small tree, near water, evergreen. Twigs glabrous or powdery. L. clustered at ends of branches, broader in upper half of leaf, finely toothed, usually glabrous. Fl. in a long red drooping tassel. Fr. green, quadrangular, about 1" long.

**68. Careya arborea.** *Bambwe.*

Medium tree, in moist places. Twigs thick, glabrous, ribbed, light brown. L. with rounded teeth, wider in upper half, produced far down the stalks, generally clustered at ends of branches. Fl. showy white and pink, with very numerous long purple stamens. Fr. round, green, fleshy, 2"—3" across with four calyx lobes on top. L. bright crimson before falling,

**69. Crypteronia paniculata.** *Anambo.*

Evergreen. Bark silvery grey. L. oval, sometimes slightly hairy beneath. Fl. yellowish-green with an unpleasant smell, in bunches of tassels 6" long.

**70. Lagerstroemia Flos Reginae. *Pyinma.***

Tree, generally near water. Bark ashen grey, with thin papery flakes. L. glabrous, sometimes not quite opposite, stalks short, thick. Fl. purple, large, in large plumes at the ends of branches. Fr. round, 1" long, seated on a star-shaped ribbed cup, long persistent on the tree.

**71. Lagerstroemia macrocarpa. *Kôn-pyinma.***

Small tree on rising ground. L. broader and larger than in No. 70. Fr. also larger. Old l. brightly coloured before falling.

**72. Lagerstroemia parviflora. *Zaungbale.***

Twigs and undersides of young l. hairy. L. not stalked, grey-green when old. Fl. pink or white,  $\frac{1}{4}$ " broad in sprays at ends of branches. Fr.  $\frac{3}{4}$ "—1" long, on smooth cup.

**73. Lagerstroemia tomentosa. *Lèza.***

Bark light grey, almost smooth with fibrous surface. Twigs velvety. L. tawny-velvety beneath on stalks  $\frac{1}{4}$ ". Fl. white, 1" across often in large masses. Fr.  $\frac{2}{3}$ " partly enclosed in the ribbed cup.

**74. Duabanga sonneratioides. *Myaukngo. Thitkazaw.***

Tree in damp places. Bark smooth, brown, branches horizontal, drooping at the ends. L. with thick very short stalks, in flat sprays. Fl. 2"—3", at ends of branches, green and fleshy calyx and fugitive white petals.

**75. Homalium tomentosum. *Myaukchaw.***

Bark quite smooth, green and white. Twigs hairy, generally zig-zag. L. velvety when young, 4"—6" long, with thick very short stalks, nerves prominent, often coloured. Fl. small, in drooping tassels.

**76. *Tetrameles nudiflora.* Thitpók. Baing.**

Large tree in moist forest often with large flat buttresses. Bark smooth, grey. L. with cordate base and five basal nerves, stalks 3"—5" long. Teeth alternately large and small. Fl. small, in much branched bunches 4" long, before the l.

**77. *Sarcocephalus cordatus.* Mau-kadôn.**

Medium tree in moist places. Bark smooth, grey when young. L. glabrous, cordate, broad, 3"—7" long on 1" stalks. Fr. fleshy, irregularly lobed.

**78. *Anthocephalus Cadamba.* M̄u-u.**

Tree with horizontal branches. Bark dark brown lightly fissured. L. shining above, often velvety beneath, 5"—10" long. Fr. a ball of dry seeds.

**79. *Adina cordifolia.* Hnaw.**

Tree with horizontal branches. Bark grey with small scales. L. rounded, cordate, light green, turning yellow before falling, velvety beneath, 4"—8" long and broad; stalk 3"—4", hairy, often red.

**80. *Stephegyne diversifolia.* Binga.**

Medium tree. Bark smooth, with occasional horizontal furrows. L. slightly velvety beneath, spaces between the veins often raised, broad, cordate at base, 3"—10" long on thick hairy stalk  $\frac{1}{2}$ "—1 $\frac{1}{2}$ " long.

**81. *Nauclea excelsa.* Thitpayaung.**

Medium tree in moist places. Bark with small rounded grey scales. L. shining, glabrous, straight sided, 6"—10" long on  $\frac{3}{4}$ " stalk at a small angle with the twig.

**82. Hymenodictyon excelsum.** *Kuthan.*

Bark dark grey, rough, flakes between fissures rounded. L. collected at ends of branches, reddish when young, velvety, broad, 4"—10" long on 2"—4" stalk. Fl. in short plumes with two long-stalked bracts which persist in fr. Seed vessels recurved on stalk.

**83. Diospyros burmanica.** *Tè.*

Small tree, often surrounded by root suckers. Bark dark, sharply fissured. Twigs velvety, thin. L. dark green, shining above, rusty-velvety beneath, straight-sided 3"—5" long on very short stalk. Fr. round, 1"—1½" across, yellow, on a four-pointed calyx.

**84. Cordia fragrantissima.** *Hmaikchawk. Sandawa.*

Medium tree. Wood scented. Bark light brown, falling off in large thin irregular flakes. L. velvety when young, glabrous when old, with white scales on upper side, 5"—10" long on stalk 1"—2". Fr. partially enclosed in the calyx.

**85. Dolichandrone serrulata.** *Thakut.*

Medium tree. Leaflets opposite with an odd one at end, glabrous, pointed, sometimes toothed, 3"—4" long on stalk  $\frac{1}{4}$ "— $\frac{3}{4}$ " long. Fl. pretty, white with long tube dilated above, 3"—6" long, falling off in early morning. Calyx split down one side. Pod 30" by  $\frac{2}{3}$ ". Seeds with thin wings 1" long.

**86. Heterophragma adenophyllum.** *Petthan.*

Medium tree. Bark light brown. Twigs thick, brown-velvety. Leaflets entire, velvety beneath, not stalked, lowest pair smaller. Fl. large, at ends of branches, erect, two-lipped, yellow,

rusty-velvety. Calyx split into five lobes. Pod 1—3 feet long, round, ribbed, velvety, curling.

**87. *Stereospermum chelonoides.* Thande.**

Medium tree. Bark grey, smooth, with occasional horizontal furrows. L. clustered at end of shoots. Leaflets sometimes toothed, glabrous, on  $\frac{1}{2}$ " stalks. Fl.  $\frac{3}{4}$ " yellow and red, calyx  $\frac{1}{4}$ ", lobes shallow. Pod narrow, angled, curved, 12"—30" long. Seeds wedge-shaped in notches in the core. Pods remain long on the tree after breaking open.

**88. *Stereospermum neuranthum.* Thande.**

Like No. 87 but leaflets velvety when young, rough when old, short pointed; calyx  $\frac{1}{2}$ ", and pod 12"—18" long.

**89. *Stereospermum suaveolens.* Thande. Thakutbo.**

Twigs sticky, velvety. Leaflets velvety beneath, on very short stalks, broader and bigger than Nos. 87 or 88, but without the reduced lowest pair as in No. 86. Pod cylindrical, 12"—24" long, thick, ribbed and speckled.

**90. *Tectona grandis.* Kyun.**

Bark light brown, rather smooth, but in narrow fibrous strips. Twigs quadrangular. L. broad, surface rough above, velvety beneath, 12"—24" long, narrowed into stalk 1"—1 $\frac{1}{2}$ "; a red brown dye if crumpled. Black shining scales visible on underside of l. of seedlings. Fl. white in yellow velvety plumes 1—3 feet long at ends of branches, long persistent on the tree. Fr. inside a bladder 1" across.

**91. *Premna pyramidata.* Kyunbo. Kyunnalin.**

Small tree. Bark light grey, smooth. Twigs golden velvety. L. golden velvety beneath, 6"—12" long on 1"—3" stalk. Fr. small, round, glabrous.

**92. *Gmelina arborea.* Yemane.**

Medium tree. Bark smooth, grey, with lighter coloured rounded patches where flakes have fallen off. Twigs velvety. L. with 3 to 5 basal nerves, with shining glands at their junction with stalk, velvety beneath, 4"—9" long on stalk 3"—5". Fl. yellow and brown, two-lipped. Fr. yellow, shining, 1" across.

**93. *Vitex glabrata.* Tauksha.**

Medium tree, bark grey, smooth, with a few horizontal furrows. Twigs slightly hairy; leaflets glabrous, on stalks 1" long.

**94. *Vitex peduncularis.* Kyetyo.**

Like No. 93 but leaflets three on winged stalks,  $\frac{1}{3}$ " long, and with minute yellow glands on underside. Main leaf-stalk sometimes winged.

**95. *Vitex pubescens.* Kyetyo. Kyungauknwè.**

Like No. 94 but twigs velvety, quadrangular, leaflets velvety, sessile, not glandular.

**96. *Bridelia retusa.* Seikchi.**

Medium tree. Bark dark grey, flaky, with thick spines when young. L. in flat sprays, velvety and whitish beneath, with 15 to 25 pairs of straight parallel prominent veins, joined by similar small ones, margins sometimes waved in upper half. Fr. round, black,  $\frac{1}{3}$ " across.

**97. *Holoptelea integrifolia.* Pyaukseik.**

Bark smooth, grey with irregularly wavy flakes. Twigs velvety. L. in flat sprays, sometimes finely velvety on nerves beneath, under surface often rather rough. Fr. generally before the l., circular, winged all round, 1" across.

**98. *Streblus asper.* Ókhnè.**

Small tree. Twigs stiff, hairy. L. stiff, rough on both sides, variably toothed, on very short stalks, nerves few, arching into a marginal vein. Fr. yellow, fleshy,  $\frac{1}{2}$ " across.

**99. *Ficus* spp. Nyaung.**

Trees with smooth brown bark. Sometimes with a stem, more often growing on, and eventually enclosing, another tree. Generally rooting from the branches. Twigs generally thick, with ring scars. Thick white milky juice. Fr. a fig.

**100. *Artocarpus Lakoocha* Myauklók.**

Twigs velvety, without ring scars. L. broad, 6"—10" long on 1" stalk, densely velvety beneath. Fr. spongy, yellow outside, often pink within, up to 2" diameter.





## INDEX TO BURMESE NAMES.

	No.		No.
Ananbo .. .. .	69	Lein .. .. .	62
Baing .. .. .	76	Letkôk .. .. .	17
Bambwe .. .. .	68	Letpan .. .. .	16
Binga .. .. .	80	Lèza .. .. .	73
Bwègyin .. .. .	53	Lunbo .. .. .	37
Chinbyit .. .. .	52	Madama .. .. .	46
Chinyôk .. .. .	28	Maniawga .. .. .	60
Didu .. .. .	15	Ma-u .. .. .	78
Dwabôk .. .. .	14	Mau-kadôn .. .. .	77
Dwani .. .. .	23	Mèzali .. .. .	51
Gangaw .. .. .	7	Myatya' .. .. .	25
Gwe .. .. .	39	Myaukchaw .. .. .	75
Gyo .. .. .	32	Myauklôk .. .. .	100
Hnaw .. .. .	79	Myaukngo .. .. .	74
Hmaikchawk .. .. .	84	Nabè .. .. .	38
In .. .. .	10	Nagye .. .. .	22
Ingyin .. .. .	12	Naywè .. .. .	5
Kadet .. .. .	4	Ngu .. .. .	49
Kanazo .. .. .	21	Ngushwe .. .. .	50
Kanyin-byu .. .. .	8	Nguzat .. .. .	50
Kanyin-ni .. .. .	9	Nyaung .. .. .	99
Kathit .. .. .	41	Ôkh nè .. .. .	98
Kôkko .. .. .	57	Ôkshit .. .. .	26
Kôn-pyiamá .. .. .	71	Padauk .. .. .	48
Kuthan .. .. .	82	Palan .. .. .	53
Kyetyo .. .. .	94	Panga .. .. .	64
Kyi .. .. .	67	Pauk .. .. .	42
Kyun .. .. .	90	Petthan .. .. .	86
Kyunbo, .. .. .	91	Petwun .. .. .	24
Kyungauknwè .. .. .	95	Pinlè-kanazo .. .. .	21
Kyunnalin .. .. .	91	Pônnyet .. .. .	6

	No.		No.
Pyaukseik .. ..	97	Thadi .. ..	27
Pyinkado .. ..	54	Thakut .. ..	85
Pyinma .. ..	70	Thande .. ..	87, 88, 89
Sandawa .. ..	84	Thingan .. ..	11
Seikchi .. ..	96	Thinwin .. ..	40
Sha .. ..	55	Thitkazaw .. ..	74
Shaw-byu .. ..	19	Thitkado .. ..	30
Shawni .. ..	20	Thitmagyi .. ..	58
Sinninthayet .. ..	34	Thitpayaung .. ..	81
Sit .. ..	59	Thitpôk .. ..	44, 76
Swani .. ..	23	Thitpyu .. ..	59
Tabauk .. ..	47	Thitsanwin .. ..	47
Tamalan .. ..	45	Thitsein .. ..	61
Tanaung .. ..	56	Thitsi .. ..	36
Taukkyan .. ..	63	Thitya .. ..	13
Tauksha .. ..	93	Wetshaw .. ..	18
Taungdama .. ..	30	Yemane .. ..	92
Taungthayèt .. ..	35	Yindaik .. ..	43
Tawtama .. ..	30	Yinma .. ..	29
Tawthayet .. ..	33	Yôn .. ..	65
Tè .. ..	83	Zaungbale .. ..	72
Thabutgyi .. ..	3	Zi .. ..	31
Thabye .. ..	66	Zinbyun .. ..	2
Thabyu .. ..	1		

## INDEX TO BOTANICAL NAMES.

	No.		No.
Acacia Catechu ..	55	Dalbergia Oliveri ..	45
Acacia leucophloea ..	56	Dalbergia ovata ..	46
Adina cordifolia ..	79	Dalbergia paniculata ..	47
Aegle Marmelos ..	26	Dillenia indica .. ..	1
Albizzia Lebbek ..	57	Dillenia pentagyna ..	2
Albizzia odoratissima ..	58	Diospyros burmanica ..	83
Albizzia procera ..	59	Dipterocarpus alatus ..	8
Anogeissus acuminata ..	65	Dipterocarpus turbinatus	9
Anthocephalus Cadamba	78	Dipterocarpus tuber-	
Artocarpus Lakoocha ..	100	culatus .. ..	10
Barringtonia acutangula	67	Dolichandrone serrulata	85
Bauhinia malabarica ..	52	Duabanga sonneratioides	74
Bauhinia racemosa ..	53	Eriolaena Candollei ..	23
Berrya Ammonilla ..	24	Erythrina suberosa ..	41
Bombax insigne ..	15	Eugenia spp. .. ..	66
Bombax malabaricum ..	16	Ficus spp. .. ..	99
Bridelia retusa ..	26	Flacourtia cataphracta	5
Buchanania latifolia ..	37	Garuga pinnata ..	28
Bursera serrata ..	27	Gmelina arborea ..	92
Butea frondosa ..	42	Grewia Microcos ..	25
Calophyllum Inophyllum	6	Heritiera Fomes ..	21
Carallia lucida .. ..	60	Heterophragma adeno-	
Careya arborea .. ..	68	phyllum .. ..	86
Cassia fistula .. ..	49	Holoptelea integrifolia	97
Cassia renigera, .. ..	50	Homalium tomentosum	57
Cassia siamea .. ..	51	Hopea odorata .. ..	11
Cedrela Toona .. ..	30	Hymenodictyon excelsum	82
Chukrasia velutina ..	29	Kydia calycina .. ..	14
Cordia fragrantissima ..	84	Lagerstroemia Flos	
Crataeva Roxburghii ..	4	Reginae .. ..	70
Crypteronia paniculata	69	Lagerstroemia macro-	
Dalbergia cultrata ..	43	carpa .. ..	71
Dalbergia Kurzii ..	44	Lagerstroemia parviflora	72
		Lagerstroemia tomentosa	73

	No.		No.
<i>Mangifera caloneura</i> ..	33	<i>Sterculia foetida</i> ..	19
<i>Mangifera sylvatica</i> ..	34	<i>Sterculia villosa</i> ..	20
<i>Melanorrhoea usitata</i> ..	36	<i>Stereospermum chelo-</i>	
<i>Mesua ferrea</i> .. ..	7	<i>noides</i> .. ..	87
<i>Miliusa velutina</i> ..	3	<i>Stereospermum neuranthum</i> .. ..	88
<i>Millettia pendula</i> ..	40	<i>Stereospermum suaveolens</i> .. ..	89
<i>Nauclea excelsa</i> ..	81	<i>Streblus asper</i> .. ..	98
<i>Odina Wodier</i> .. ..	38	<i>Swintonia floribunda</i> ..	35
<i>Pentacme suavis</i> ..	12	<i>Tectona grandis</i> ..	90
<i>Premna pyramidata</i> ..	91	<i>Terminalia belerica</i> ..	61
<i>Protium serratum</i> ..	27	<i>Terminalia pyrifolia</i> ..	62
<i>Pterocarpus macrocarpus</i>	48	<i>Terminalia tomentosa</i> ..	63
<i>Pterospermum semisagittatum</i> .. ..	22	<i>Terminalia tomentella</i> ..	64
<i>Sarcocephalus cordatus</i>	77	<i>Tetrameles nudiflora</i> ..	76
<i>Schleichera trijuga</i> ..	32	<i>Vitex glabrata</i> .. ..	93
<i>Shorea obtusa</i> .. ..	13	<i>Vitex peduncularis</i> ..	94
<i>Spondias mangifera</i> ..	39	<i>Vitex pubescens</i> .. ..	95
<i>Stephegyne diversifolia</i>	80	<i>Xylia dolabriformis</i> ..	45
<i>Sterculia alata</i> .. ..	17	<i>Zizyphus Jujuba</i> ..	31
<i>Sterculia colorata</i> ..	18		







