

105. *FULIGULA NYROCA*, (Güld.).

- | | | | |
|------|-----|----------------------------|-----------|
| 1. ♂ | 2 ♀ | Kila Wali, Murghab, Herat, | March 5. |
| 3. ♂ | | Maruchak, Badghis, ditto, | March 16. |

106. *CLANGULA GLAUCION*, (Linn.).

- | | | |
|------|---------------------------|-----------|
| 1. ♀ | Chahar Shamba, Maimanah | Feb. 12. |
| 2. | Maruchak, Murghab, Herat, | March 15. |
| 3. ♂ | Ditto ditto, | March 20. |

107. *ERISMATURA LEUCOCEPHALA*, Scop.

- | | | |
|----|-----------------------------|-----------|
| 1. | Maruchak, Afghan Turkistan, | March 21. |
|----|-----------------------------|-----------|

108. *MERGUS ALBELLUS*, (Linn.).

- | | | |
|------|-------------------------------|----------|
| 1. ♂ | Adult, Maimanah, | Feb. 10. |
| 2. ♂ | jno. Chahar Shamba, Maimanah, | Feb. 12. |
| 3. ♀ | Ditto ditto, | Feb. 17. |

No. 1 is in fine black and white plumage.

109. *TADORNA VULPANSER*, Flem.

- | | | |
|----|-------------------------|------|
| 1. | Oxus, Afghan Turkistan, | Feb. |
|----|-------------------------|------|

110. *CASARCA RUTILA*, Pall.

- | | | |
|----|--------------------------------|-----------|
| 1. | Karawal Khana, Murghab, Herat, | April 10. |
|----|--------------------------------|-----------|

VII.—*On the Species of Loranthus indigenous to Perak.*—By GEORGE KING, M. B., LL. D., F. L. S., *Superintendent of the Royal Botanic Garden, Calcutta.*

[Received 29th March 1887 ;—Read 4th May 1887.]

Prior to the date of the punitive expedition which was despatched to Perak some years ago, that province was practically an unknown country. One of the results of the expedition just mentioned was the location in the state of a British Resident. And as the office of Resident has, fortunately for the interests of science and civilization, been held, almost from its first institution, by Sir Hugh Low, we are now in possession of the materials for obtaining some knowledge of its natural history. During the past few years considerable botanical collections have been accumulated by the Rev. Father Scortechini (now, alas ! no more) who collected on behalf of the Perak Government, and by Mr. H. H. Kunstler, who collected for the Calcutta Botanic Garden. From the materials brought together by these gentlemen and which have come

into my hands, I propose to draw up, as time permits, lists of species already described, together with descriptions of any which appear to be new. And I now begin the series by an enumeration of the species of *Loranthus* indigenous to the province.

The list which follows contains in all twenty-five species, of which eleven are described for the first time. At the end of the list I have appended descriptions of two new Sumatran species collected by Mr. H. O. Forbes. The genus being rather large and polymorphic, it has been divided into sections. In the following enumeration, I follow the sectional divisions adopted, in their *Genera Plantarum*, by Sir J. D. Hooker and the late Mr. Bentham.

Section I. EULORANTHUS.

1. *L. Lobbii*, Hook. fil. *Flora Brit. India*, V, 204.

The commonest species in the province; growing on trees of various species, at elevations of from 500 to 4000 feet; found also in Penang and apparently also in Borneo. This species approaches very closely the Sumatran species *L. axanthus*, Korth.

Section II. PHENICANTHEMUM.

2. *L. pulcher*, DC. *Prod.* IV, 295; Hook. fil. *Fl. Brit. Ind.* V, 205; *L. speciosus*, Wall. *Cat.* 518; *L. coccineus*, Hook. *Bot. Misc.* t. 58; *Dendrophthoe pulcher*, Miq. *Fl. Ind. Bat.* I, pt. 1, 821.

Common; but scarcely ascending so high as the last. This varies greatly as to the breadth of its leaves which in some plants is as much as 3 inches, while in others it is barely 1 inch. Found also in Penang, and represented in Tenasserim by the closely allied species *L. Parishii*, Hook. fil., and in Java by *L. Lyndenianus*, Zoll.

3. *L. pentapetalus*, Roxb. *Fl. Ind.* I, 553, Ed. Carey and Wallich, II, 290.; Hook. fil. *Fl. Brit. Ind.* V. 206; DC. *Prod.* IV, 295; Wall. *Pl. As. Rar.* iii, t. 225, and *Cat.* 503; Kurz *For. Flora Burmah*, ii, 322; Griff. *Notulae*, IV, 617, and *Ic. Pl. Asiat.* t. 624, 625; Korth. *Verhand.* *Loranth.* 66; Blume *Fl. Javae Loranth.* 39, t. 14 and 23 A.; *Phoen. pentapetalum*, Miq. *Fl. Ind. Bat.* I, Pt. 1, p. 823; *Dendrophthoe pentapetala*, G. Don. *Syst.* iii, 419.

This is not very common in the province. It is a widely distributed species, being found in India from Nepal, along the outer and lower Himalaya, to Sikkim; thence through Assam, the Khasia Hills, Chittagong, to Burmah: it extends also to the Andamans, Penang, Malacca, Banka, Java, Sumatra, Borneo, and probably to other islands of the Malayan Archipelago. Sir J. D. Hooker reduces to this species *L. polycarpus*, Wall. *Cat.* 540, and *L. erythrostachys*, Wall. MSS.

4. *L. coccineus*, Jack in Mal. Misc. I, 8; Hook. Bot. Misc. i, 278; Hook. fil. Fl. Brit. Ind. V, 206; Roxb. Fl. Ind. Ed. Carey and Wall. ii, 215; DC. Prod. IV, 296; Korth. Verhand. Loran. 68; Griff. Notul. IV, 620, and Ic. Pl. Asiat. t. 626. *L. racemiferus*, Wall. Cat. 539; *Phœnicanthemum coccineum* and *Bennetianum*, Miq. Fl. Ind. Bat. I, pt. 1. 825, 826; *Dendrophthoe coccinea*, G. Don. Syst. iii, 419.

At low elevations: not common in the province: is found also in Pegu, Tavoy, Malacca, Singapore, and Penang, and extends to India (Cachar) and to some of the islands of the Malayan Archipelago.

Section III. HETERANTHUS.

5. *L. heteranthus*, Wall. Cat. 537; Hook. fil. Fl. Brit. Ind. V, 208; DC. Prod. V. 306; *L. eleutheropetalus*, Kurz in Journ. As. Soc. Beng. 1871, ii, 64, and For. Flora Burmah, ii, 321; *Dendrophthoe macrocalyx*, Miq. Fl. Ind. Bat. I. Pt. 1, 821.

Found in this province only in Laroot. This species extends as far northwards as Chittagong, where it was once collected by Mr. Lister. Wallich and Brandis found it in Burmah. Southward it extends to Java and Borneo.

6. *L. crassipetalus*, nov. spec. Glabrous in all its parts, except the bracteoles and calyx-tube which are puberulous; branchlets thick, striate, polished, the bark dark coloured; leaves coriaceous, rigid, petiolate, scattered, broadly ovate-oblong, rarely ovate-elliptic; apex obtuse; base attenuate; shining on the upper, dull on the lower, surface; nerves invisible when fresh, obscure when dry, midrib slightly prominent: length of blade 1·5 to 2 in. (in the ovate-elliptic leaves as much as 2·5 in.); breadth about 1 inch, rarely 1·5 in.; petiole ·25 in. long, stout; racemes longer than the leaves, stout, rigid, erect, axillary, sparsely many-flowered; pedicel thick, ·15 in. long, bearing at its apex a single broad, cochleate, bract, bracteole 0; calyx-tube cylindric, the limb wide-spreading, truncate, cup-shaped; corolla straight, narrowly conical, petals, 5, thick, distinct to their bases, smooth and yellowish externally, ridged and of a bright red internally, ·75 in. long; anthers linear, half as long as the petals, basifixed: style filiform, stigma minute.

Perak, on Gunong Idjou. Scortechini, Nos. 363 and 521.

7. *L. productus*, nov. spec. Quite glabrous; branches long, straight, strongly 4-angled, slightly flattened especially at the nodes, the bark polished and dark in colour; leaves coriaceous, petiolate, opposite, elliptic-lanceolate or ovate-oblong, gradually narrowed to the sub-acute or obtuse apex, narrowed rather suddenly to the petiole at the base; nerves obscure even when dry, midrib slightly prominent; length of blade 3·5 in. to 5 in.; breadth 1·5 in. to nearly 2 in.; petiole about ·5 in.

long; flowers crowded in small, sessile, axillary clusters; bract 0; bracteoles cohering into a short, cylindric, obscurely 2 to 4-crenate tube which, in the unfertilised flower, envelopes the whole of the calyx except its limb; calyx-tube shorter than the cylindric, truncate limb; petals 4, distinct, fleshy, linear, .35 in. long, reflexed from about the middle; anthers linear, basifixed, nearly as long as the filaments, curved when mature; style shorter than the petals; stigma small, truncate; fruit .3 in. in diameter, globular, smooth, crowned by the rather long cylindric calyx-limb and enveloped at its base by the persistent bracteolar cup.

Perak, at elevations of from 3000 to 3600 feet; Scortechini, Nos. 391 and 581; Kunstler (King's collector) No. 3240.

A remarkable species; with long, slender, polished branches which are almost black when dry. From the flower-bearing axils there often arise short, leaf-and-flower-bearing branches; and as the leaves on these (in herbarium specimens) usually fall off, they assume the appearance of long-peduncled cymes. This is clearly a *Heteranthus*; but it does not quite conform to the definition of that section given by Mr. Bentham and Sir J. D. Hooker in their *Gen. Plantar.* (iii, 208), inasmuch as there is no bract present, and there are bracteoles which form a cup almost entirely enveloping the calyx in the flower, and persisting even in the ripe fruit.

I have named this species from the length of its branches.

Section IV. CICLANTHUS.

8. *L. scurrula*, Linn. var. *obtecta*, Kurz For. Fl. Burm. ii, 319; Hook. fil. Fl. Brit. Ind. V, 209: *L. obtectus*, Wall. Cat. 534: *L. concavifolius*, Griff. Notul. IV, 615.

Very common at low elevations; Scortechini, Nos. 311b, 421b.

The typical form of this species occurs throughout the whole of British India; its other varieties, as defined in the Flora of British India, viz., *bengalensis*, *laevigata*, and *graciliflora* having each a more circumscribed distribution.

9. *L. ferrugineus*, Roxb. Fl. Ind. I, 551, ii, 188; DC. Prod. IV, 299; Wall. Cat. 500; Hook. fil. Fl. Brit. Ind. V. 210; Jack in Mal. Misc. i, 9, and in Hook. Bot. Misc. i, 279, t. 59; *Dendrophthoe ferruginea*, G. Don Gen. Syst. iii, 420; Miq. Fl. Ind. Bat. I, Pt. 1, 812.

Not uncommon at low elevations; Scortechini, Nos. 630b, 2099.

Very common in Malacca, Singapore, and Penang: found also by Kurz in lower Burmah. Distributed also in Sumatra and Java. A specimen in the Calcutta Herbarium and named by him *L. Oortianus* Korth, is the same as this: and, if Junghuhn's identification is correct,

Korthal's name, as being the older, must supplant Roxburgh's. *Dendrophthoe ignea*, Scheff. from Banka, according to the specimen in the Calcutta collection, is also the same as this. *L. Schultesii*, Bl., (Fl. Jav. Loranth, t. 2) appears to me referable to *L. scurrula*, Linn. rather than to this.

10. *L. Malaccensis*, Hook. fil. Fl. Brit. India, V, 210.

On high trees, at elevations of from 3000 to 4000 feet. King's Collector (Kunstler) No. 6286: found also at Malacca by Griffith.

Section V. DENDROPTHOE.

11. *L. grandifrons*, nov. spec. Young branches rather thin, terete, little swollen at the nodes, the bark dark-coloured, lenticillate: leaves sub-opposite or alternate, rarely exactly opposite, coriaceous, petiolate, broadly ovate or ovate-oblong, the apex sub-acute, the base rounded or emarginate; main nerves 4 to 6 pairs, ascending, prominent (as is the midrib) especially on the lower surface; both surfaces dull, sparsely pulverulent; length of blade 5 to 8 inches, breadth 3 in. to 4.5 in.; petiole .6 in. to 1 inch: the whole inflorescence covered with minute pulverulent, sub-deciduous, tomentum; racemes solitary, axillary, or from the older leafless branches, woody, erect, or slightly curved, 2.5 in. long, about 30-flowered, pedicels short; bract* small, thick, clawed; calyx-tube cylindric, inflated at the base, the limb much longer than the short, sub-globose, ovary, 5 or 6 toothed; corolla-tube 3 inches long, cylindrical, 5 or 6-striate, slightly inflated towards the limb; lobes of limb .5 in. long, reflexed, linear; anthers basifixed, linear, about half as long as the lobes; style filiform, a little longer than the stamens; stigma small, sub-globose.

In the low country, not very common. *Scortechini*, No. 926; Kunstler, Nos. 786 and 2067. Found also in the Lampongs, in Sumatra, on trees by the edge of heavy forest. H. O. Forbes, No. 1665.

When young the whole exterior of the corolla is tomentose like the calyx, but when fully expanded it occasionally becomes sub-glabrous. The base of the corolla is whitish; the upper part pink. In advanced bud some of the corollas are constricted at the apex and inflated towards the middle; but when fully expanded the corolla is tubular, gradually widening towards the mouth. This fine species comes near *pentandrus* as to technical characters: but in general appearance it somewhat resembles *L. longiflorus*, Desr. It is, however, well distinct from the latter by its differently shaped, more distinctly nerved leaves; and by its more erect, rigid, and scurfy inflorescence.

12. *L. pentandrus*, Linn. Mant. 63; Bl. Bijdr. 661; Hook. fil. Fl. Brit. Ind. V, 216; DC. Prod. IV, 305; Kurz For. Fl. Burmah, II, 320;

Wall. Cat. 514 : Korth. Verhand. Loranth. 80 ; Blume Fl. Javae, Loranth. 33, t. 10 : *L. farinosus*, Desr. in Lamk. Encycl. iii, 597 ; Roxb. Fl. Ind. Ed. Carey and Wall. ii, 221 ; Griff. Notul. IV, 616, and Ic. Pl. Asiat. t. 620, f. 1, 2 ; *Dendrophthoe pentandra* and *farinosa*, Miq. Fl. Ind. Bat. I ; pt. 1, 818, 819 ; *Elytranthe farinosa*, G. Don. Gen. Syst. IV, 427.

Very common in all parts of the province at low elevations (Kunstler, Nos. 4931, 7538, 7767 ; Scortechini, No. 605) ; distributed northwards through Burmah and Chittagong as far as Sylhet, and southwards in the Malayan Peninsula and Archipelago generally. Sir J. D. Hooker reduces to this species *L. rigidus*, *contractus*, and *Finlaysonianus*, Wall. Cat. Nos. 531, 6864, and 6871.

13. *L. Scortechinii*, nov. spec. Glabrous, the young branches thick, terete, scarcely swollen at the nodes, the bark reddish ; leaves coriaceous, petiolate, in verticels of about 6, oblong-lanceolate or oblong-elliptic, the apex shortly caudate-acuminate, the base attenuate ; midrib prominent on both surfaces, nerves invisible in fresh, obscure in dry, specimens, about 15 pairs, sub-horizontal ; length of blade 7 to 8 inches ; breadth 2.25 to nearly 3 inches ; petioles stout, 1.25 in. ; racemes with a thick, pitted, woody axis little more than 1.5 in. long, axillary ; flowers numerous, crowded ; bract minute, cochleate, clawed ; calyx tube cylindric, the limb irregularly dentate ; corolla curved, tubular, slightly expanded upwards and 6-angled near its junction with the 6-cleft limb ; lobes of limb linear, slightly expanded at the base, about a fifth of the length of the tube ; anthers linear, obtuse, about half as long as the lobes ; style as long as the stamens ; stigma globose, small ; corolla tube 4 in. long, limb 1 inch.

At elevations under 1000 feet, not common : Scortechini, No. 906 ; Kunstler (King's collector), No. 6020.

This is a fine species, and is distinguished amongst Asiatic *Dendrophthoes* by its large, verticillate leaves. The corolla is of a pale yellow, the lobes of the limb being tinged with green : the stigma is red.

14. *L. Duthieanus*, nov. spec. Young shoots terete, not swollen at the nodes, bark pale pinkish, sparsely lenticellate ; axis of inflorescence and bracts minutely pubescent ; other parts quite glabrous ; leaves coriaceous, alternate opposite or in verticels of 3, petiolate, oblong-elliptic or elliptic-lanceolate with sub-acute apex and attenuate base, midrib and nerves invisible in the fresh, slightly visible in dry, specimens ; length of blade 2.5 to 3 inches, breadth .75 in. to 1 in., petiole .4 in. long ; racemes slender, axillary, shortly pedunculate, about 6-flowered ; bract small, cochleate, clawed ; bracteoles 0 ; calyx-tube cylindric, the limb, short, truncate, waved ; corolla tubular, bright red in colour, curved, inflated upwards, constricted at the base and at the apex when in

bud, 6-striate, limb about one third of the length of the tube; the lobes 6, linear, sub-spathulate, thickened at the tips, reflexed; anther linear, about half as long as the lobes, basifixed; style filiform, as long as the stamens; stigma small, globular.

Collected only once by the late Father Scortechini, the exact locality being unknown.

A species allied to *curvatus*, Bl., but with a hexamerous, glabrous corolla, which is moreover wider and of a different colour from that of *curvatus*; also with narrower and more irregularly disposed leaves than in that species. Named after Mr. J. F. Duthie, Superintendent of the Botanic Garden, Saharunpore.

Section VI. LOXANTHERA.

15. *L. speciosus*, Bl. Fl. Jav. Loranth. 15, t. 20, and 23 fig. C. Miq. Fl. Ind. Bat. I, Pt. 822.; *L. coccineus*, Reinw. MSS. (not of Jack) Bl. Bijdr. 664; *L. Reinwardtianus*, Schult. Syst. DC. Prod. IV, 706: *L. loxantherus*, DC. l. c. p. 316.

Apparently not common in the Province; Scortechini, No. 1328; on the banks of the Kinta river (Kunstler, No. 767.) There is a single specimen in the Calcutta Herbarium from Malacca. The species is found in Sumatra (Forbes No. 3234a) and in Java.

Section VII. MACROSOLEN.

a. *longiflorae*.

16. *L. formosus*, Bl. Bijdr. 664 and Fl. Jav. Loranth. t. 15; DC. Prod. IV, 297; Kurz For. Flora Burmah ii, 317; Hook. fil. Fl. Brit. Ind. V, 220; *Macrosolen formosus*, Miq. Fl. Ind. Bat. I, Pt. 1, 827; *Elytranthe formosa*, G. Don Gen. Syst. iii, 426.

At elevations of from 3000 to 4000 feet, Kunstler, Nos. 2170 and 6264: found also in Java, and, according to a single leaf specimen in the Calcutta Herbarium (Griffith, No. 2729), also in Burmah.

17. *L. Kunstleri*, nov. spec. Quite glabrous; young branches stout, terete, the bark pale; leaves coriaceous, sub-sessile, opposite, ovate-oblong, gradually narrowed to the sub-acuminate apex, the base rounded, not cordate; midrib and nerves prominent on both surfaces (when dry) but especially on the lower; primary lateral nerves about 6 pairs, secondary about 8 pairs; length of blade 8 to 10 inches, breadth 3 in. to 4.5 in.; petiole very stout, about .15 in. long; racemes very short, from the axils of the leaves and also from the old wood; bracteoles 3, minute, broad, united by their bases; calyx-tube cylindric, smooth, the limb truncate, slightly wavy; corolla clavate and boldly 6-angled in bud,

slightly curved, tubular, inflated at the base of the limb, lobes of the limb 6, reflexed, sub-spathulate, keeled externally, the tips thickened; anthers half as long as the lobes, linear, basifixed, with a slight process at the union with the filament; style filiform, as long as the stamens; stigma truncate; berry .5 in. long, ovoid, bright yellow at first, black when ripe; length of corolla-tube 2.5 in., of limb .6 in.

At elevations under 500 feet, H. H. Kunstler (King's collector), Nos. 2669, 2760, 6009, 8460.

This comes near *L. formosus*, Bl., but has much larger leaves, which have rounded (not acute) bases as in that species. The corolla also differs. Mr. Kunstler describes this as a very handsome species, the tube of the corolla being of a rich yellow, the limb bright green externally and dark red inside. It is a large species, plants of it often reaching 8 to 10 feet in length.

18. *L. dianthus*, King and Scort. MSS. Quite glabrous, the young shoots terete, thin, scarcely swollen at the nodes, the bark pale; leaves thinly coriaceous, entire, shortly petiolate, opposite, exactly lanceolate rarely ovate-lanceolate, the apex acuminate; midrib and primary nerves slightly visible when fresh, rather distinct when dry; length of blade 3 in. to 5 in., breadth .75 in. to 2.5 in.; petioles slender, .2 in. long; cymes axillary, sessile, 2-flowered; bracts at base of cyme 2, decussate, ovate-acute; bracteoles of the individual flowers united into a short, thick annulus which surrounds the base of the flower; calyx-tube smooth, cylindric, the limb short, truncate; corolla narrowly tubular, inflated and boldly 6-angled just under the limb, clavate in bud; limb with 6 twisted, reflexed, oblanceolate or sub-spathulate lobes which are keeled and inflated at the base; anthers basifixed, linear, one-third of the length of the lobes of the limb; style filiform, as long as the stamens; stigma small, capitate: fruit globular, smooth, .5 in. in diam., crowned by the calyx-limb; length of corolla tube 2.5 in.; of limb .75 in.

At elevations under 500 feet; Scortechini, Nos. 76 and 604a; King's Collector, Nos. 1870, 6446.

This species comes near *formosus*, Bl., from which the sessile, 2-flowered cymes, single, decussate pair of bracts, the annulus formed of the united bracteoles, and the globular berry are the best characters to distinguish it. This also must be near *L. meluitangensis*, Korth., of which I have seen no specimen. The tube of the corolla of this species is described as scarlet, and the lobes of the limb as green, with purple edges and a pale line along the anterior surface. The late Father Scortechini left a drawing of this species, to which I have added the details. He left no MSS. name for the species, but, from a note on the drawing, he appears to have considered it to be *L. formosus*, Bl. or near it.

19. *L. evenius*, Bl. Fl. Javae Loranth. t. 16; *L. avenis*, Bl. Bijdr. 663.; Korthals Verhand. Loranth. 85; DC. Prod. IV, 397; *Elytranthe avenis*, G. Don. Syst. iii, 426.

Found only once in Perak by Father Scortechini: extends also to Sumatra.

20. *L. platyphyllus*, nov. spec. Quite glabrous. Young branches 4-angled; leaves opposite or sub-opposite, thinly coriaceous, subsessile, broadly ovate-rotund or sub-orbicular, edges entire or unequally and remotely crenate, the apex obtuse, the base cordate; primary lateral nerves about 4 pairs, curving, somewhat distinct on both surfaces, the midrib rather prominent; length and breadth of blade about 4·5 in.; petiole less than 1·5 in. long, stout; racemes very short, axillary, about 4-flowered; bract single, bracteoles minute, coalescing into a sinuate-edged cup less than a quarter of the length of the cylindrical, truncate, calyx-tube; corolla large, curved, tubular, expanding slightly upwards, 6-angled and inflated below the apex, clavate when in bud; limb 6-cleft, the lobes spreading, linear-lanceolate or sub-spathulate, blunt and inflexed at the tips, each with 2 ridges on the inner surface, inflated and keeled at the base; filaments adherent to the tube; anthers linear, basifixed; tube of corolla 3·5 in. long; limb 8 in.; style filiform, as long as the stamens; stigma small, sub-capitate; fruit unknown.

Found only once by Scortechini, who has not noted the exact locality.

A species recognisable at once amongst the Asiatic species of *Macrosolen* by its large sub-sessile, nearly orbicular leaves.

b. *racemulosae*.

21. *L. ampullaceus*, Roxb. Fl. Ind. I, 552, ii, 189, and Ed. Carey and Wall. ii, 209; Hook. fl. Fl. Brit. Ind. V, 220; DC. Prod. IV, 296; Kurz For. Fl. Burm. ii, 316; Wall. Cat. 502. *L. sub-umbellatus*, Bl. Bijdr. 662 and Fl. Jav. Loranth. t. 18; *L. sphaerocarpus*, Bl. Bijdr. 661 and Fl. Jav. Loranth. t. 17; DC. Prod. IV, 297; *Macrosolen pallens*, *sphaerocarpus* and *oleioides*, Miq. Fl. Ind. Bat. i, Pt. 1, 830, 831; *Elytranthe sphaeroidea*, Don. Gard. Dict. IV, 127.

On Ulu Bubong, at elevations from 500 to 1000 feet: Kunstler, Nos. 7866 and 10697. This species, as limited by Sir J. D. Hooker in his Flora of British India, is distributed from Bengal, Assam, and the Khasia Hills to Penang, Malacca, and Singapore. I agree with Hooker in considering it as probably a mere form of *L. globosus*, Roxb.; and, if this view be correct, the synonymy of *globosus* should be reduced here. The Wallichian species *pallens* (Cat. 523), *carinulatus* (529), *sub-globosus* (538), *oleifolius*, (524), *viridiflorus*, (512), are all forms of the same widely distributed and therefore variable plant.

22. *L. Lowii*, nov. spec. Glabrous everywhere, except the peduncles, pedicels, and bracteoles, which are puberulous; young shoots thin, terete, slightly swollen at the nodes, the bark pale brown; leaves rigid, coriaceous, ovate-lanceolate, or elliptic-lanceolate, gradually tapering to either end, the apex acute or acuminate, the edges recurved when dry; nerves invisible, midrib visible only on the pale, dull, under surface; length of blade 1·5 in. to 2 in.; breadth ·6 in., rarely ·8 inch.; petiole stout, ·15 in.; racemes umbellate, in clusters of 1 to 3, in the axils of the leaves, on short pedicels, 2 to 4-flowered; bract and bracteoles minute, broadly ovate, acute, the latter united by their bases into a 3-toothed cup: calyx tubular, smooth, the limb very short, truncate, waved; corolla about 1 in. long, the tube slightly curved, 6-angled and slightly inflated at the junction with the limb; lobes of the limb sub-spathulate, thickened at the apex, reflexed, about a third as long as the tube; anthers about a third as long as the lobes, linear; style filiform, nearly as long as the stamens; stigma small, sub-globular.

Found only once in the province (by Fr. Scortechini) and the exact locality not noted.

A species, in the texture of leaves and in inflorescence, approaching *L. retusus*, Jack; but very distinct from that and from the other Malayan species of *Macrosolen*. Named in honour of Sir Hugh Low, British Resident in Perak.

Section VIII. ELYTRANTHE.

23. *L. albidus*, Bl. Bijdr. 665, and Fl. Jav. Loranth. (sub *Elytranthe*) t. 22; Korth. Verhand. Loranth. 87; DC. Prod. IV, 299; Hook. fl. Fl. Brit. Ind. V, 222; *L. leucosiphon*, Griff., Notul. IV, 623, and Ic. Pl. Asiat. t. 619-623: *Elytranthe albida*, Miq. Fl. Ind. Bat. I, Pt. 1, 832.

Not common; Scortechini, Nos. 428*b* and 626. This extends northwards to lower Burmah, and southwards to Malacca, Java, Sumatra, and Borneo.

Section IX. LEPIOSTEGERES.

24. *L. Beccarii*, nov. species. Glabrous; the younger branches quadrangular (at least when dry), the older branches terete; leaves on rather long petioles, opposite or sub-opposite, thinly coriaceous, entire, from ovate-lanceolate or ovate-oblong to sub-orbicular, very variable even on the same plant, the apex sub-acute or obtuse, the base cuneate or rounded, midrib prominent, especially on the under surface; primary nerves about 6 pairs, slightly visible on the under surface (when dry); length of blade 3·5 in. to .5 in., breadth 1·5 in. to nearly 3 in.; petiole ·75 in. to 1·25 in. long; capitula from the old wood, 20 to 30-flowered,

sessile, sub-globose when young, afterwards strobiliform and much elongate; the bracts large, numerous, imbricate, coloured, from oblong to semi-orbicular, obtuse, the inner 2 to 3 inches long, the outer gradually shorter, all empty; calyx short, cylindric, truncate; corolla, 3 to 3·5 in. long, the tube splitting into 6, very narrow, linear segments which are united for about ·5 in. at the base, and then again slightly just below the twisted, reflexed, linear, obtuse segments of the limb; anthers linear, pointed, basifixed, ·5 in. long: style filiform; stigma small, rounded, exerted slightly beyond the anthers; fruit sub-angular, globose, ·3 in. in diam.

Rare in the province; occurring at elevations under 2000 feet. Scortechini, 1208; King's Collector, Nos. 5793 and 7956. Found also in Borneo by Sig. Beccari (Herb. Becc. P. B. 1171).

This is the finest of all the Asiatic species of *Loranthus*. The enormous bracts are of a pale red colour; the tube of the corolla is of a deep claret purple, while the reflexed limb is yellow. The whole inflorescence is about 6 inches long and forms a most striking object.

25. *Loranthus Kingii*, Scortechini MSS. Young branches pale, terete, swollen at the nodes, slightly lenticillate when young, otherwise quite smooth; leaves coriaceous, petiolate, opposite, exactly ovate-lanceolate, smooth and with the nerves invisible on both surfaces, the midrib prominent below; length of blade 3 in.; breadth 1·25 in. to 1·5 in.; petiole about ·5 in.; capitula sessile, axillary, strobiliform, 4 to 6-flowered; bracts large, empty, coloured, keeled, in two series, an outer and an inner; the outer of 6 to 7 decussate pairs, the uppermost of which is linear-oblong, obtuse, 1·5 in. long, the lower pairs gradually smaller and more or less acute; the inner series of a single lanceolate pair; bracteoles round each individual flower 4, linear-lanceolate, about ·75 inch long; calyx very short, 6-toothed; corolla narrowly infundibuliform, curved below the middle, 1·75 in. long, split nearly half-way down on one side, and cleft at the apex for about one-fifth of its entire length into 5, lanceolate, acuminate, reflexed teeth; anthers basifixed, linear, subulate, with a slight process at their bases; style filiform, about as long as the stamens; stigma small, sub-capitate: fruit elongated ovoid, crowned by the remains of the calyx-tube.

Perak; Scortechini, No. 1251.

The late lamented Father Scortechini left only a single specimen of this with me. It appears, however, to agree with an imperfect specimen in the Calcutta Herbarium from Malacca (Herb. Maingay No. 695).

* * * * *

I take the present opportunity of describing two new species collected by Mr. H. O. Forbes in Sumatra—both handsome plants, belonging respectively to the sections *Loranthera* and *Lepiostegeres*.

Loranthus (Sect. *Loxanthera*) *Lamponcus*, nov. spec. Branches terete, scurfy when young, as are the peduncles, ultimately all parts glabrous: leaves thickly coriaceous, opposite or sub-opposite, entire, petiolate, ovate-oblong to broadly ovate, apex sub-acute, or acute, base rounded, rarely sub-acute, the midrib very prominent and the nerves very indistinct on both surfaces, length of blade 4 to 5 inches: petioles stout, about .75 in. long; flowers in pairs on crowded short, stout, bifurcate axillary peduncles; calyx tube short, cylindric, the limb truncate, irregularly and obscurely sinuate, sub-crenate; corolla nearly 1.5 in. long, clavate in bud, the cylindrical tube slightly inflated about the middle, cleft at the apex to about one third of its length into 6 linear-lanceolate lobes; stamens 6, the filament arcuate, dilated at the apex, and attached to the back of the linear anther below its middle; style filiform; stigma minute, clavate: bracteole short, broad, minute.

Lampongs, Sumatra: H. O. Forbes, No. 1737.

The curved filaments and dorsifixed anthers put this unmistakeably into the section *Loxanthera*. That section, however, as at present defined, is 5-merous. The definition of it must therefore be altered to 5 or 6-merous.

Loranthus (Sect. *Lepiostegeres*) *Forbesii*, nov. spec. Glabrous; the branches terete, with pale bark, swollen at the nodes; leaves coriaceous, petiolate, entire, opposite, ovate-oblong, sub-acute, the base rounded, or slightly cordate; midrib thick, prominent on the under surface; the nerves about 6 pairs, indistinct on both surfaces when fresh, slightly distinct on the upper surface when dry; length of blade 4.5 in. to 5.5 in.: breadth 2 in. to 2.5 in.; petiole stout, .75 in. long; capitula 4 to 6-flowered, axillary, sessile, strobiliform, the bracts large, coloured, keeled, in two series, an outer and an inner; the outer series of 5 or 6 decussate pairs of which the upper pair are 2.3 in. long, the second pair about half as long, and the outer pairs gradually shorter, all obtuse; the inner series of 2 pairs, narrower than the outer, acuminate; each flower surrounded by 4 linear-lanceolate, keeled bracteoles about 1 inch in length; calyx tube very short, 6-toothed; corolla tubular, slightly widened above, the tube 6-angled, cleft for about one third of its entire length into 6, lanceolate, acuminate teeth: filaments flattened, grooved, adnate to the corolla-tube; anthers linear, subulate, with a process at their bases: style filiform, as long as the stamens; stigma small, cylindric.

Sumatra, near Kepala, at an elevation of 1200 feet. H. O. Forbes, Herb. No. 2844.

Mr. Forbes found this superb species growing on a Leguminous tree. The bracts he describes as being scarlet, and the corolla of a brilliant lake colour.



King, George. 1888. "VII.—on the Species of Loranthus Indigenous to Perak." *The journal of the Asiatic Society of Bengal* 56(I), 89–100.

View This Item Online: <https://www.biodiversitylibrary.org/item/110436>

Permalink: <https://www.biodiversitylibrary.org/partpdf/368295>

Holding Institution

California Academy of Sciences

Sponsored by

California Academy of Sciences Library

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.