Loranthus oleaefolius

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latus. *Lamellae* confertae, postice attenuato-adnexae, subventricosae, incarnatae. *Stipes* aequalis vel deorsum attenuatus, glaber, albidus, 4-5 cm. longus, 3 mm. crassus. *Sporae* ellipsoideae, $7 \times 4 \mu$ incarnato-tinctae.

SINGAPORE. On the ground, *E. M. Burkill* 61.

Allied to *Entoloma jubatum*, Fr., but distinguished by the grey pileus and whitish stem.

***Flammula elegantula*, Massee.**

Pileus carnosulus, e convexo planus vel depressus, squamulosus, glabrescens, aurantio-brunneus, 4-5 cm. latus. *Lamellae* confertae, aurantiacae, postice attenuato-adnexae. *Stipes* aequalis, fartus, fibrillosus, pileo concolor, basi obscurior, 4 cm. longus, 3-4 mm. crassus. *Sporae* ellipsoideae, basi oblique apiculatae, $7 \times 4 \mu$.

SINGAPORE. On the ground, *E. M. Burkill* 324.

A brightly coloured fungus belonging to the section of *Flammula* of which *F. sapinea* is the type.

***Galera flexipes*, Massee.**

Pileus membranaceus, convexo-campanulatus, interdum subexpansus, pruinatus, glabrescens, sordide ochraceus, laevis, 1.5 cm. latus. *Lamellae* laetae, subdistantes, acie fimbriata, laete ochraceae, postice rotundato-adnatae. *Stipes* flexuosus, primo fibrilloso-fartus deinde fistulosus, glaber, aequalis, pileo concolor, 4-5 cm. longus, 1 mm. crassus.

SINGAPORE. On the ground, *E. M. Burkill* 111.

Allied to *Galera stricta*, but smaller and with a slender, flexuous stem.

HYDNACEAE.

***Hydnum elatum*, Massee.**

Pileus carnosus, e convexo depressus, margine sinuato lobatove, squamuloso-diffractus, ochraceo-incarnatus, marginem versus pallidior, 5-7 cm. latus. *Aculei* decurrentes, acuti, pallidi. *Stipes* solidus, subaequalis, pileo concolor vel pallidus, 10 cm. longus, 1 cm. crassus. *Caro* fibrosa, compacta, pallida.

SINGAPORE. On the ground, *E. M. Burkill* 183.

Remarkable for the long, stout stem. Allied to *Hydnum repandum*, Fr., which the present fungus approaches in colour. Probably edible.

LXVII.—LORANTHUS OLEAEFOLIUS.

T. A. SPRAGUE.

In 1810 J. C. Wendland proposed a new monotypic genus, *Lichtensteinia*, distinguished from *Loranthus* by connate filaments, and hence assigned by him to the Monadelphia Monogynia.* The type species, *Lichtensteinia oleaefolia*, Wendl., was a parasitic plant discovered in the Prieska Division of Cape Colony by Dr. H. Lichtenstein, who travelled in South Africa during the period 1803-1806. Lichtenstein gave the following account of the species to Wendland:

* Coll. Pl., vol. ii., pp. 4-7, t. 39 (1810).

"I found this parasitic plant in June, 1805, by the Orange River at the ford which the Carana Hottentots call Pristkap.* It grew here and there on different species of *Lycium*, and also, but less frequently, on the highest branches of *Mimosa nilotica* [*Acacia horrida*, Willd.]. Its root is woody and tuberous, always much thicker than the branch on which it grows, and which it not unfrequently surrounds, as our *Viscum* does. The branchlets are woody up to the apex, with grey bark and white wood. The largest plant had a length of a foot and a half. It was just beginning to flower, but nevertheless on my return five weeks later not a trace of fructification was to be found. The old flowers, however, were split down longitudinally and bent back. Apart from the beauty of its flowers and the strangeness of its structure, the whole growth attracted my attention all the more because it was, on account of the cold season, almost the only plant in this region which I met with in full flower."

The chief interest of the above account lies in the long period during which the corolla of this species persists. Very little is known about the duration of the corolla in the *Loranthaceae*. The petals of *Viscum nervosum*, Thunb., are persistent in fruit,† and those of *Loranthus undulatus*, E. Meyer, appear to remain on the ovary for a considerable period after fertilisation has taken place, judging from herbarium specimens.

According to Lichtenstein,‡ Willdenow reduced *Lichtensteinia*, Wendl., to *Loranthus*, but the reduction was never published. Chamisso and Schlechtendal mention, however, that *Lichtensteinia oleaefolia* is represented in Willdenow's herbarium under the name *Loranthus Lichtensteinii*.§

F. G. Dietrich reduced *Lichtensteinia* to *Loranthus* in 1818, and re-named the species *Loranthus speciosus*.|| In 1828 Chamisso and Schlechtendal accepted the reduction, and proposed the new combination *Loranthus oleaefolius*, which preserves the original specific name.§ They described a new species, *Loranthus elegans*, which had been collected at Caledons-kluft by Mund. This was said to resemble *L. oleaefolius* in habit; it differed in the glabrous corolla with spirally revolute lobes and the longer, linear anthers.

In 1830 J. A. and J. H. Schultes proposed the new name *Loranthus Schlechtendalianus* to replace *L. elegans*, Cham. & Schlecht., on account of the latter being antedated by *L. elegans*, Mart.¶ Two years previously Anton Sprengel had founded a new genus and species of *Lobeliaceae*, *Moquinia rubra*, on Zeyher's n. 296 from Uitenhage. *Moquinia* was transferred to the *Loranthaceae* by Griesselich,** and *M. rubra* was reduced to *Loranthus Schlechtendalianus* by J. A. and J. H. Schultes.¶

* The spelling Priskob is given by Lichtenstein, *Travels in S. Africa*, Engl. ed., p. 340 (1812).

† Sprague in Dyer, *Fl. Trop. Afr.*, vol. vi., sect. 1, p. 394 (1911).

‡ *Travels in S. Africa*, p. 221 (1812), footnote.

§ *Linnaea*, vol. iii., p. 209 (1828).

|| *Lexik. Gaertn. Nachtr.*, vol. iv., p. 473 (1818).

¶ Schultes, *Syst. Veg.*, vol. vii., p. 1635 (1830).

† Tent. *Suppl. Syst. Veg.*, p. 9 (1828).

** *Linnaea*, vol. v., p. 421 (1830).

In 1837 Ecklon and Zeyher enumerated as *Loranthus oleaefolius* a plant collected by them in the Clanwilliam Division.*

E. Meyer recorded *L. oleaefolius* from Little Namaqualand in 1843†; and proposed (without describing) a new species, *L. croceus*, based on specimens collected by Drège in the Clanwilliam, Prince Albert and Albany Divisions.‡

In the following year Presl reduced both *L. elegans*, Cham. & Schlecht., and *L. croceus* to *L. oleaefolius*, apparently relying on Ecklon and Zeyher's identification of the latter; he stated that the specimens which Drège had issued as *L. oleaefolius* probably represented a new species, which might be called *L. Meyeri*.§

In 1847 Drège|| reduced *L. croceus* to *L. elegans*, Cham. & Schlecht., and also referred to the latter the Clanwilliam specimens which Ecklon and Zeyher* had enumerated as *L. oleaefolius*. According to Drège, therefore, the synonymy and distribution of *L. oleaefolius* and *L. elegans* were as follows:—

1. ***Loranthus oleaefolius*, Cham. & Schlecht.**—*Lichtensteinia oleaefolia*, Wendl. *Loranthus speciosus*, Dietr. *L. Lichtensteinii*, Herb. Willd.

DISTRIB. Prieska Division, *Lichtenstein*; Little Namaqualand, Drège.

2. ***Loranthus elegans*, Cham. & Schlecht.**—*L. croceus*, E. Meyer. *L. oleaefolius*, Eckl. & Zeyh., non Cham. & Schlecht.

DISTRIB. Caledons-kluft, *Mund*; Clanwilliam Div., Ecklon & Zeyher, Drège; Prince Albert Div., Drège; Albany Div., Drège.

In 1862, however, Harvey accepted Ecklon and Zeyher's identification of their Clanwilliam plant as *L. oleaefolius*, and founded a new species, *L. namaquensis*, on the Little Namaqualand specimens referred by E. Meyer and Drège to *L. oleaefolius*.¶ According to Harvey, the synonymy of the two species was as follows:—

1. ***Loranthus namaquensis*, Harv.**—*L. oleaefolius*, E. Meyer, non Cham. & Schlecht.

2. ***Loranthus oleaefolius*, Cham. & Schlecht.**—*Lichtensteinia oleaefolia*, Wendl. *Loranthus Lichtensteinii*, Herb. Willd. *L. elegans*, Cham. & Schlecht. *L. croceus*, E. Meyer.

Harvey's delimitation of the two species is the same as Drège's: the only point at issue is the incidence of the name *Lichtensteinia oleaefolia*, Wendl., and its synonyms. Harvey divided the South African species of *Loranthus* into two groups, the first including those with the unopened corolla cylindric or clavate, not swollen at the base nor constricted, the second comprising those with the unopened corolla strongly constricted above the urceolate or swollen base. He placed *L. oleaefolius* in the former group,

* Enum., p. 358 (1837).

† Drège, *Zwei Pfl. Docum.*, pp. 92 (III. B. 8), 96 (III. C. 6).

‡ Drège, l.c. 63 (II. D. 8), 139 (V. A. 39), 109 (III. E., a. 9).

§ Bot. Bemerk., pp. 75, 76 (1844).

|| *Linnaea*, vol. xix., p. 663 (1847).

¶ Harv. & Sond. Fl. Cap., vol. ii., pp. 575, 576 (1862).

whereas it is clear from the figure of *Lichtensteinia oleaefolia*—which he cannot have seen—that it belongs to the latter. There can be no doubt that it is conspecific with *L. namaquensis*, Harv. Apart from the style, which is represented as filiform instead of skittle-shaped, the figure of *Lichtensteinia oleaefolia* agrees with *Loranthus namaquensis*: the shape and indumentum of the corolla, the shape and size of the corolla-lobes and anthers, and the union of the filaments definitely preclude identification with *L. elegans*. The indumentum of the corolla of *Lichtensteinia oleaefolia* (fig. *e*) agrees with Burchell's n. 1468, from the Prieska Division. The synonymy and distribution of the two species may now be stated as follows:

1. ***Loranthus oleaefolius***, Cham. & Schlecht. in *Linnaea*, vol. iii. p. 209 (1828); DC. *Prodr.* vol. iv. p. 304; Schultes, *Syst. Veg.* vol. vii. p. 1634; E. Meyer in Drège, *Zwei Pfl. Docum.* pp. 92 (III. B. 8), 96 (III. C. 6). *Lichtensteinia oleaefolia*, Wendl. *Coll. Pl.* vol. ii. p. 4, t. 39 (1810). *Loranthus speciosus*, F. G. Dietr. *Lexik. Gaertn. Nachtr.* vol. iv. p. 473 (1818). *L. Lichtensteinii*, Herb. Willd. ex. Cham. & Schlecht. in *Linnaea*, vol. iii. p. 209 (1828), in syn. *L. Meyeri*, Presl. *Bot. Bemerk.* p. 76 (1844), nomen. *L. namaquensis*, Harv. in Harv. & Sond. *Fl. Cap.* vol. ii. p. 577 (1862); Sprague in Dyer, *Fl. Trop. Afr.* vol. vi. sect. 1, p. 361. *L. bumbensis*, Hiern in Cat. Afr. Pl. Welw. vol. i. p. 933 (1900). *Tapinanthus namaquensis*, Van Tiegh. in Bull. Soc. Bot. France, vol. xlii. p. 267 (1895).

DISTRIB. Angola, German South-West Africa, Rhodesia, Bechuanaland, Ngamiland, Little Namaqualand, Little Bushmanland, Prieska Division, Transvaal.

2. ***Loranthus elegans***, Cham. & Schlecht in *Linnaea*, vol. iii. p. 209 (1828); Drège in *Linnaea*, vol. xix. p. 663. *Moquinia rubra*, A. Sprengel, *Tent. Suppl. Syst. Veg.* p. 9 (1828); Griesselich in *Linnaea*, vol. v. p. 421. *Loranthus Schlechtendalianus*, Schultes, *Syst. Veg.* vol. vii. p. 1635 (1830). *L. croceus*, E. Meyer in Drège, *Zwei Pfl. Docum.* p. 200 (1843), nomen. *L. glaucus*, DC. *Prodr.* vol. iv. p. 303, non Thunb. *L. glaucus*, var. *Burchellii*, DC. l.c. (1830). *L. oleaefolius*, Eckl. & Zeyh. *Enum.* p. 358; Harv. in Harv. & Sond. *Fl. Cap.* vol. ii. p. 576; Benth. & Hook. f. *Gen. Pl.* vol. iii. p. 209; Engl. in Engl. *Jahrb.* vol. xx. p. 83; Engl. & Prantl, *Nat. Pflanzenfam.* vol. iii. 1, p. 187, t. 126, fig. L—N; non Cham. & Schlecht. *L. oleifolius*, Marloth, *Fl. S. Afr.* vol. i. p. 167, t. 38, fig. A. *L. speciosus*, Engl. in Engl. & Prantl, *Nat. Pflanzenfam. Nachtr.* i. p. 131, non F. G. Dietr. *Lichtensteinia elegans*, Van Tiegh. in Bull. Soc. Bot. France, vol. xlii. p. 254 (1895). *L. speciosa*, Van Tiegh., l.c.

DISTRIB. Cape Colony: Divisions of Clanwilliam, Worcester, Prince Albert, Murraysburg, Graaff Reinet, Somerset, Queenstown, Cathcart, Komgha, Albany, Alexandria, Uitenhage.

THE SECTIONS OF LORANTHUS.

The erroneous identification of *Lichtensteinia oleaefolia* with *Loranthus elegans* has led to the generic and serial names *Lichten-*

steinia and *Oleaefolii* being misapplied to the group of which *L. elegans* is the sole representative. For this group the sectional name *Moquinia* is now suggested.

The nomenclature of the subordinate groups within the genus *Loranthus* is in a rather confused state, owing to the very different divisions proposed by various authors.

In February, 1830, Martius segregated five genera from *Loranthus*: *Struthanthus*, *Psittacanthus*, *Tristerix*, *Dendrophthœ* and *Phthirusa*.* Of these, the purely American genera *Struthanthus*, *Psittacanthus* and *Phthirusa* are still recognized, whilst *Dendrophthœ* has been re-united with *Loranthus*. *Tristerix* was based on *Loranthus viridiflorus*, Wall. (Nepal), *L. tetrandus*, Ruiz & Pav. (Chile) and *L. Reinwardtianus*, Schultes (Java), which are now referred respectively to the genera *Elytranthe*, *Phrygilanthus* and *Loxanthera*.†

In 1829 Blume prepared the *Loranthaceae* of his Flora Javae,‡ and divided *Loranthus* into seventeen genera. He sent a synopsis of these to J. A. and J. H. Schultes, who published it in their *Systema Vegetabilium*, vol. vii. p. 1729 (1830). In the Flora Javae itself, of which the part containing *Loranthaceae* did not appear until after February, 1830,§ Blume assigned only sectional rank to his segregates. Blume's seventeen genera or sections included *Lichtensteinia*, Wendl. (1810) and *Spirostylis*, Presl (1829), in addition to the five genera segregated by Martius. The new groups proposed by Blume were: *Dendropemon*, *Lipotactes*, *Phoenicanthemum*, *Loxanthera*, *Tapinanthus*, *Elytranthe*, *Macrosolen*, *Tolypanthus* and *Lepeostegeres*. He restricted *Tristerix*, Mart., to *L. tetrandrus*, Ruiz & Pav., transferring to *Macrosolen* the two Asiatic species included by Martius.||

A. P. De Candolle proposed a very different classification of *Loranthus* in 1830. This was published in outline in his memoir on the *Loranthaceae*, and elaborated in the *Prodromus*. De Candolle corresponded with Blume about the *Loranthaceae* in 1829, and knew of Blume's unpublished genera, *Lepeostegeres*, *Elytranthe* and *Loxanthera*,¶ but was unacquainted with the remaining ones until after the completion of his work. He saw Martius's classification, however, in time to incorporate it in the Addenda to vol. iv. of the *Prodromus*. The following synopsis of De Candolle's classification indicates how Blume's groups correspond with De Candolle's.

Sect. I. EULORANTHUS, DC. Petals free; anthers basifixed or adnate.—*Loranthus*, *Dendropemon*, *Lipotactes*, *Phoenicanthemum*, *Dendrophthœ* (part), *Phthirusa*, *Struthanthus* (part).

Sect. II. SYMPHYANTHUS, DC. Petals united into a regular corolla; anthers basifixed.—*Dendrophthœ* (part), *Elytranthe*, *Macrosolen* (part), *Tolypanthus*, *Lepeostegeres*.

* Flora, 1830, vol. i., p. 102.

† Gamble in Journ. As. Soc. Beng., vol. lxxv., pp. 378, 369 (1914); Eichler in Fl. Bras., vol. v., pars. 2, p. 47 (1868).

‡ Mus. Bot. Lugd.-Bat., vol. i., p. 243.

§ On p. 10 he quotes Bot. Zeit., 1830, No. 7; Pfeiffer is therefore incorrect in stating that Blume's Fl. Jav. *Loranth.* were published in 1829.

|| Fl. Jav. *Loranth.*, p. 17.

¶ DC. Prodr., vol. iv., pp. 296, 298, 299, 316.

Sect. III. *SCURRULA*, DC. Petals united into a corolla which is split unilaterally; anthers basifixed.—*Dendrophthoe* (part), *Lichtensteinia*, *Tapinanthus*, *Macrosolen* (part).

Sect. IV. *NOTANTHERA*, DC. Petals nearly free, or united at the base into a regular corolla; anthers dorsifixed.

Subsect. 1. *OSCILLANTHERA*, DC.. Anthers versatile.—*Psittacanthus*, *Tristerix*, *Spirostylis*, *Struthanthus* (part).

Subsect. 2. *LOXANTHERA*, DC. Anthers not versatile.—*Loxanthera*, Blume.

Endlicher adopted Blume's classification with little modification: he reduced *Lichtensteinia* to *Tapinanthus*, and divided *Dendrophthoe* into two subsections *Cichlanthus* and *Eudendrophthoe*.*

In 1860 Grisebach founded the new section *Oryctanthus* on *Loranthus occidentalis*, Linn.† Two years later Oliver published a provisional arrangement of the species of *Loranthus* in 22 sections, but gave no names to those of his groups which were new.‡ Section 15 was based on *L. undulatus*, E. Mey., and *L. Acaciae*, Zucc., on which the sections *Plicopetalus* and *Tapinostemma* were respectively founded by Bentham. Section 18 included, in addition to some Asiatic species, two new African ones, *L. Mannii* and *L. Kirkii*, on which the sections *Sycophila* and *Acrostachys* were based by subsequent authors.

The Brazilian *Loranthaceae* were revised by Eichler in 1868.§ He proposed the new genus *Phrygilanthus*, which included *Tristerix* (as restricted by Blume) and part of *Struthanthus*. He raised *Loranthus* sect. *Oryctanthus*, Griseb. to generic rank, and established two subgenera of *Psittacanthus*, *Eupsittacanthus* and *Aëtanthus*, characterized respectively by versatile and non-versatile anthers.

Bentham recognized only two genera of the tribe *Loranthaeae*, *Nuytsia* and *Loranthus*, and divided the latter into 20 sections.¶ Four of these were new: *Acrostachys*, founded on *L. Kirkii*, Oliv.; *Plicopetalus*, founded on *L. undulatus*, E. Mey.; *Tapinostemma*, based on *L. Acaciae*, Zucc.; and *Heteranthus*, which included numerous species from the Malay Archipelago, Australia and New Zealand, and a single one, *L. Mannii*, from tropical Africa.

Bentham made the presence of a ventral tooth at the apex of the filament the criterion of the section *Tapinanthus*, in which he accordingly included *L. dodonaeifolius*, DC., and *L. Schimperii*, Hochst., in addition to *L. lanceolatus*, Beauv. (*L. Belvisii*, D.C.) and its allies.

In 1889 Engler followed Bentham in his treatment of the Old-world sections, accepting eleven of those defined by Bentham, but segregating the sections *Macrosolen*, *Elytranthe* and *Lepeostegeres* as a distinct genus, *Elytranthe*, Blume (sensu latiore).¶ He followed Eichler in regard to the American sections, recognizing

* Endl. Gen. Plant., vol. ii., p. 801.

† Fl. Brit. W. Indies, p. 313.

‡ Journ. Linn. Soc., vol. vii., pp. 97-102.

§ Martius, Fl. Bras., vol. v., pars 2, pp. 1-135.

¶ Bentham & Hooker, Gen. Pl., vol. iii., p. 207 (1880).

¶ Engl. & Prantl, Nat. Pflanzenfam. vol. iii., 1, p. 183.

these as distinct genera; he raised *Psittacanthus*, subgenus *Aëtanthus*, Eichl., to generic rank, and revived the genus *Gaiadendron*, G. Don.; Eichler had included the latter in *Phrygilanthus*, whereas Bentham recognized *Phrygilanthus* and *Gaiadendron* as distinct sections of *Loranthus*.

In 1894 Engler revised the African species of *Loranthus*, and established a new section, *Ischnanthus*, distinguished from *Tapinanthus* by tetramerous flowers.* He divided the section *Dendrophthoe* into 16 series, and *Tapinanthus* into four. *Dendrophthoe*, series *Oleaefolii*, was based on *Loranthus elegans*. Cham. & Schlecht., which, following Harvey, he erroneously identified with *L. oleaefolius*, Cham. & Schlecht. The African species on which *Tapinanthus*, Blume, was originally based, were included in *Tapinanthus*, series *Constrictiflora*. In 1895 Engler reduced the section *Tapinostemma* to *Plicopetalus*.†

Engler published a revised classification of Loranthaceae in 1897, adopting as sections or series of *Loranthus* many groups which Van Tieghem had published in the meantime as independent genera.‡ He restored generic rank to *Loranthera*, Blume, and recognized as valid Van Tieghem's genus *Peristethium*. He divided *Loranthus* into four subgenera, sixteen sections and fifty-three series. Two of the subgenera were composed of both sections and series, one included series only, and the fourth one sections only.

For the details of Engler's classification, Nachtrag i. of the Pflanzenfamilien must be consulted. The following synopsis of the African groups recognized by him may be found useful.

Subgenus I. EULORANTHUS, Engl. Petals free, without basal folds.

Sect. VII. SYCOPHILA, Engl. (only African section).

Subgenus II. DENDROPTHOE, Engl. Petals united, without basal folds; filaments without a tooth.

This includes the African series: 4. *Laxiflora*, 5. *Ambigui*, 9. *Lichtensteinia*, 10. *Acranthemum*, 11. *Englerina*, 12. *Longiflora*, 14. *Involutiflora*, 15. *Rigidiflora*, 17. *Cinerascens*, 18. *Lepidoti*, 19. *Cupulati*, 20. *Metula*, 21. *Rufescentes*, 22. *Infundibuliformes*, 23. *Inflati*, 25. *Hirsuti*, 27. *Longicalyculati*.

Subgenus III. TAPINANTHUS, Engl. Petals united, without basal folds; filaments with a tooth in front of the anther.

Sect. I. ISCHNANTHUS. Flowers tetramerous. Series 1. *Astephaniscus*, 2. *Stephaniscus*.

Sect. II. PENTATAPINANTHUS. Flowers pentamerous. Series 1. *Coriaceifolia*, 2. *Purpureiflora*, 3. *Obtectiflora*, 4. *Dentimetula*, 5. *Constrictiflora*.

Subgenus IV. PLICOTEPALUS, Engl. Petals free or united, provided with basal folds.

Sect. I. *Acrostachys*, II. *Euplicotepalus*, III. *Tapinostemma*.

During the period 1901-1909 the following new groups were described by Engler, the two last in collaboration with Krause:

* Engl. Jahrb., vol. xx., pp. 81-130.

† Pflanzenwelt Ost.-Afr., vol. C. p. 167.

‡ Engl. & Prantl, Nat. Pflanzenfam. Nachtr., i., pp. 127-133.

Tapinanthus, series *Eubracteati*, founded on *Loranthus proteicola*, Engl. and *L. nigritanus*, Hook. f.;* *Dendrophthoe*, series *Diplobracteati*, based on *Loranthus kwaiensis* Engl.;† *Euloranthus*, sect. *Lepidotepalum*, based on *L. periclymenoides*, Engl. & Krause;‡ *Tapinanthus*, series *Breviflori*, founded on *L. viminalis*, Engl. & Krause.§

When the writer described the *Loranthaceae* of tropical Africa in 1910, he rejected the division of *Loranthus* into subgenera, sections and series, as being unnecessarily complicated, and leading to the formation of artificial groups.|| For example, *Euloranthus*, sect. *Sycophila*, is unquestionably more closely allied to *Plicotepalus*, sect. *Acrostachys*, than the latter is to the two other sections of *Plicotepalus*. The subgenera *Dendrophthoe* and *Tapinanthus* appear to be artificial, individual groups assigned to the one subgenus having their closest allies in groups belonging to the other. Thus the *Rufescentes* appear to be allied to the *Eubracteati* and *Erectilobi*, whilst the *Infundibuliformes* seem to be related to the *Purpureiflori*. The only character by which *Tapinanthus* can be distinguished from *Dendrophthoe* is the presence of a tooth on the filament; this tooth is sometimes very minute (0.1–0.17 mm. in *L. Holstii*) and may be easily overlooked. Thus the genus *Englerina* (*Dendrophthoe*, series *Englerina*, Engl.) was founded by Van Tieghem on *Loranthus Holstii*, Engl., on the strength of the inaccurate statement that this species had no tooth.¶ Engler himself originally referred *L. Holstii* correctly to the section *Ischnanthus*, in spite of the tooth being, as he thought, missing. Similarly *L. irangensis*, Engl. (*Tapinanthus* series *Purpureiflori*) was re-described fourteen years later as a new species, assigned to *Dendrophthoe*, series *Infundibuliformes*, owing to the tooth on the filament being overlooked.** The latter case illustrates the close resemblance which individual groups of the subgenus *Dendrophthoe* bear to others of the subgenus *Tapinanthus*, which suggests that the presence of a tooth on the filament has no greater taxonomic value than transverse septation of the anthers, or the presence of verticillately branched hairs.

The writer accordingly divided the tropical African species of *Loranthus* into 29 sections: twenty-four of these representing groups previously recognized by Engler, and five being new.†† He reduced the following groups: *Englerina*, *Metula*, *Inflati*, *Dentimetula* and *Breviflori*. *Loranthus viminalis*, Engl. & Krause, the type of the *Breviflori*, is in the writer's opinion a species allied to *L. Adolphi-Friderici* and *L. rugegensis*. The flowers appear to be galled; similar flowers occur, along with normally developed ones, in *L. Ehlersii* and *L. woodfordioides*, and have been found to contain larvae. Krause still maintains, however, that the flowers are normal, and has accordingly revived the series *Breviflori*.‡‡

* Engl. Jahrb., vol. xxx., p. 303 (1901).

† ———, vol. xl., p. 522 (1908).

‡ ———, vol. xliii., p. 400 (1909).

§ ———, vol. xliii., p. 314 (1909).

|| Dyer, Fl. Trop. Afr., vol. vi., sect. 1, p. 256.

¶ Bull. Soc. Bot. France, vol. xlii., p. 257; Engl. Jahrb., vol. xx., p. 126.

** Engl. Jahrb., vol. xx., p. 111; vol. xl., p. 527.

†† These are the *Tetrameri*, *Incrassati*, *Remoti*, *Rhamnifolii* and *Erectilobi*.

‡‡ Engl. & Prantl, Nat. Pflanzenfam. Nachtr., iv., p. 73.

The re-identification of *Lichtensteinia oleaefolia*, Wendl., entails change in the nomenclature of the African sections. *Lichtensteinia*, Wendl., is a synonym of *Tapinanthus*, Blume, which corresponds to the series *Constrictiflora*, Engl. The sectional name *Moquinia* is now adopted for the group which has passed in recent years under the erroneous generic and serial names *Lichtensteinia* and *Oleaefolia*.

The synonymy of the two sections is as follows:

Sect. TAPINANTHUS, *Blume*, Fl. Jav. Loranth. p. 15; Endl. Gen. Pl. vol. ii. p. 802, excl. *Moquinia*; Benth. in Benth. & Hook. f. Gen. Pl. vol. iii. p. 210, excl. *L. dodonaeifolius* et *L. Schimperii*; Engl. in Engl. & Prantl, Nat. Pflanzenfam. vol. iii. i, p. 187, partim. Genus *Tapinanthus*, Blume apud Schult. Syst. Veg. vol. vii. p. 1730 (1830); Van Tiegh. in Bull. Soc. Bot. France, vol. xlii. p. 267, partim. Genus *Lichtensteinia*, Wendl. Coll. Pl. vol. ii. p. 4 (1810); Blume apud Schult. Syst. Veg. vol. vii. p. 1730. *Loranthus*, sect. *Lichtensteinia*, Blume, Fl. Jav. Loranth. p. 14. *Loranthus*, subgen. *Tapinanthus*, sect. *Pentatapinanthus*, ser. *Constrictiflora*, Engl. in Engl. & Prantl, Nat. Pflanzenfam. Nachtr. i. p. 133, partim. Sect. *Constrictiflora*, Sprague in Dyer Fl. Trop. Afr. vol. vi. sect. i, pp. 257, 268.

Type-species: *L. lanceolatus*, Beauv., *L. sessilifolius*, Beauv. The section comprises nearly 40 species including *L. oleaefolius*, Cham. & Schlecht., the type of sect. *Lichtensteinia*. It seems inadvisable to employ the prior name *Lichtensteinia* for the above section, as this might lead to confusion.

Sect. MOQUINIA, *Sprague*. Genus *Moquinia*, A. Spreng. Tent. Suppl. Syst. Veg. p. 9 (1828). *Loranthus*, sect. *Dendrophthoe*, series *Oleaefolia*, Engl. in Engl. Jahrb. vol. xx. p. 83. Genus *Lichtensteinia*, Van Tiegh. in Bull. Soc. Bot. France, vol. xlii. p. 254, non Wendl. *Loranthus*, subgen. *Dendrophthoe*, ser. *Lichtensteinia*, Engl. in Engl. & Prantl, Nat. Pflanzenfam. Nachtr. i. p. 131.

Type and sole species: *L. elegans*, Cham. & Schlecht.

Engler and Krause have recently described the two new series *Longitubulosi* and *Botryoloranthus*, both included in the subgenus *Dendrophthoe*. *Botryoloranthus* seems from description to be a valid group allied to *Tetrameri*; whereas the series *Longitubulosi* is almost certainly identical with the genus *Septulina*, Van Tiegh., which Engler reduced to the *Cinerascetes*. *Septulina* differs, however, from the latter in having tetramerous flowers with erect corolla-lobes and filaments, and is accordingly retained by the writer as a section.

Sect. SEPTULINA, *Sprague*. Genus *Septulina*, Van Tiegh. in Bull. Soc. Bot. France, vol. xlii. p. 263 (1895). *Loranthus*, subgen. *Dendrophthoe*, series *Cinerascetes*. Engl. in Engl. & Prantl, Pflanzenfam. Nachtr. i. p. 131, partim. *Loranthus*, subgen. *Dendrophthoe*, series *Longitubulosi*, Engl. & Krause in Engl. Jahrb. vol. li. p. 455 (1914).

Type species: *Loranthus glaucus*, Thunb. (*L. longitubulosus*, Engl. & Krause, l.c., ex. descriptione), *L. ovalis*, E. Mey.