



PLANTS PEOPLE  
POSSIBILITIES

---

Taxotrophis and Balanostreblus

Author(s): J. Hutchinson

Source: *Bulletin of Miscellaneous Information (Royal Botanic Gardens, Kew)*, Vol. 1918, No. 4 (1918), pp. 147-153

Published by: Springer on behalf of Royal Botanic Gardens, Kew

Stable URL: <http://www.jstor.org/stable/4111734>

Accessed: 26-06-2016 19:22 UTC

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at  
<http://about.jstor.org/terms>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



*Springer, Royal Botanic Gardens, Kew* are collaborating with JSTOR to digitize, preserve and extend access to *Bulletin of Miscellaneous Information (Royal Botanic Gardens, Kew)*

## XI.—TAXOTROPHIS AND BALANOSTREBLUS.

J. HUTCHINSON.

The genus *Taxotrophis* (*Urticaceae*) was established by Blume in 1852, and included two species, a Javan plant, *T. javanica*, which he had previously described as *Urtica spinosa*, and *T. Roxburghii*, founded on *Trophis spinosa*, Roxb. In 1873, Bureau\* based a new genus, *Phyllochlamys*, on *T. Roxburghii*. In 1861, Thwaites added *T. zeylanica*, founded on *Epicarpurus zeylanica*, Thw., and in 1886 and 1913 Vidal and Elmer respectively described two species from the Philippines, *T. ilicifolia* and *T. obtusa*. In 1900 Boerlage added *T. macrophylla*, founded on *Streblus macrophyllus*, Blume, from the Celebes. Mr. Gamble described in the *Kew Bulletin*, 1913, *T. triapiculata* from specimens collected in Burma by Mr. W. A. Robertson, and one from Cochin-China gathered by Pierre.

*Balanostreblus* was described and figured by Kurz in 1873. He quotes specimens under his *B. ilicifolia* from Chittagong (*Hooker & Thomson*, No. 4), and from Ava, Burma (*J. Anderson*). Through the kindness of Major Gage, it has been possible to examine the material preserved in the Calcutta Herbarium. It consists of the Chittagong specimen (of which there is more ample material at Kew), and of a plant marked as being "cultivated in the Botanic Garden." It seems probable that this second specimen, which is female, was grown either from seed or was a living plant collected at Ava by Anderson, for there seems to be no wild specimen preserved from that locality, Anderson's at Kew being from Bhamo, about 180 miles to the north-east. And as there is no doubt that this female cultivated specimen is the one figured and described by Kurz, it must be regarded as the type of the genus *Balanostreblus*. A sketch of this plant is given in the accompanying figure. Hooker & Thomson's Chittagong specimen is male, and is undoubtedly *Taxotrophis triapiculata*, Gamble, which again is not distinguishable from *T. ilicifolia*, Vidal, a determination with which Mr. Gamble is entirely in agreement. It is true that extreme forms of the species with entire or coarsely dentate leaves look very different, the dentate one apparently being prevalent in Burma and the Malay Peninsula, and the entire one in the Philippines. But Mr. E. D. Merrill, who in a letter to the Director first called attention to the similarity of *Balanostreblus* and *Taxotrophis*, informs us that "*T. ilicifolia*, Vidal, in the Philippines is enormously variable in its vegetative characters, the leaves varying from the pronounced 'Ilex' type, i.e., spiny-toothed, to quite entire." This variation is indicated in the text figures below. Mr. Merrill has come to the conclusion that the plant "Ulet" figured by Rumphius, *Herb. Amb.* iii. p. 62, t. 34, is *Taxotrophis ilicifolia*, Vidal. In this he is undoubtedly right. Whether *B. obtusa*, Elmer (see leaf, Fig. 4), should also be regarded as a form of *B. ilicifolia*, I can scarcely judge from the single specimen at Kew. The entire leaves of *B. ilicifolia*

\* Bureau in DC. *Prodr.* xvii, 217 (1873).

(Fig. 5) are nearly always rather elongate oblong-lanceolate and not ovate-elliptic as in *B. obtusa*. It is a point that can best be settled in the field by Philippine botanists.

In the General Plantarum, *Taxotrophis* is included in the tribe *Moreae*, in which the anthers are inflexed in bud, whilst *Balanostreblus* is placed in the *Artocarpeae*, where the anthers are erect. Now it is proved that male flowers of *Balanostreblus* are unknown, its position is very doubtful, and it should probably be removed from the *Artocarpeae* to the *Moraceae*, sub-tribe *Broussonetieae*, near *Malaisia*, an affinity indirectly indicated by Kurz in the Forest Flora of Burma.

CLAVIS SPECIERUM.

*Taxotrophis*, Blume.

Flores foeminei longe pedicellati:—

Flores masculi pedicellati:—

Folia ad basin subcordatum rotundata, oblongo-elliptica, remote undulato-denticulata; flores ♀ solitarii ... .. 1. *javanica*.

Folia ad basin obtusum cuneata, rhomboideo-elliptica, superne plerumque serrato-dentata; flores ♀ plerumque in racemos 3-flores dispositi ... .. 2. *zeylanica*.

Flores masculi sessiles; folia elongato-ovata vel oblongo-elliptica, caudato-acuminata 3. *caudata*.

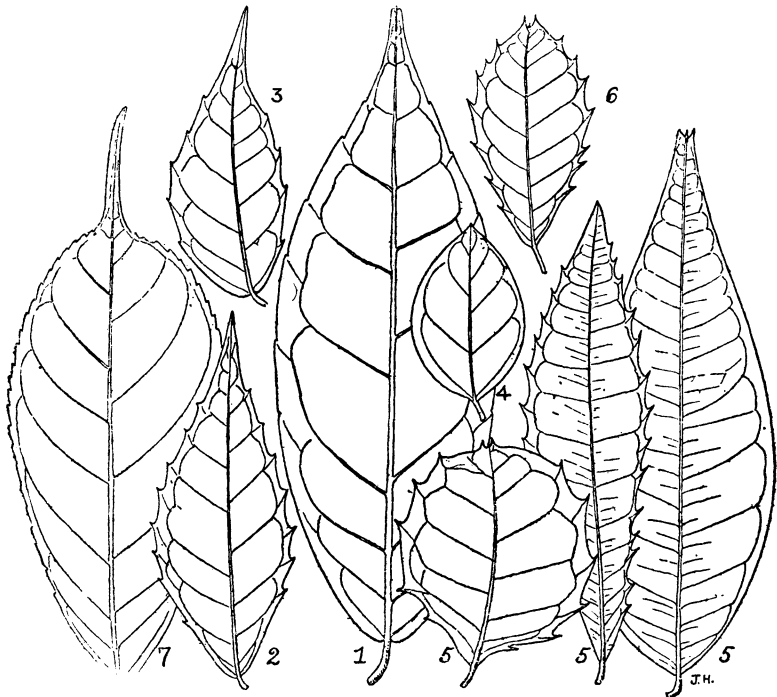


Fig. 1.—Leaves of *Taxotrophis*; the numbers correspond with those in the text.

Flores foeminei sessiles vel subsessiles:—

Inflorescentia ♂ sessilis, crassa et densiflora:—

- Folia apice mucronulato-rotundata, integra, elliptico-ovata ... .. 4. *obtusa*.  
 Folia acuminata, grosse repando-dentata vel integra et oblongo-elliptica vel oblongo-lanceolata ... .. 5. *ilicifolia*.

Inflorescentia ♂ pedunculata, anguste cylindrica et elongata vel laxiflora:—

- Folia acute spinoso-dentata, 4-7 cm. longa, apice bi- vel tri-apiculata; inflorescentia ♂ laxiflora, circiter 2 cm. longa ...  
 Folia obtuse crenato-serrata, 10-15 cm. longa, longe caudato-acuminata, apice integra; inflorescentia ♂ circiter 4 cm. longa ... .. 7. *Balansae*.

1. **T. javanica**, *Blume*, Mus. Bot. Lugd.-Bat. ii. 77, t. 26 (1852); *Miq.* Fl. Ind. Bat. i. ii. 279 (1859), excl. syn.; *Boerl.* Hand. Fl. Ned. Ind. iii. 359 (1900), *Koord. et Val. Bijdr. Booms. Java*, xi. 4 (1906) excl. syn.; *Koord. Exkurs.-Fl. Java*. ii. 88, fig. 26.—*Urtica* ? *spinosa*, *Blume*, *Bijdr. Fl. Ned. Ind.* 507 (1825). *Epicarpurus spinosa*, *Blume*, l.c.

JAVA. Salak Mountain, *Blume*; South-east Java, *Forbes* 1204; rain-forest of East Java, up to 500 m. alt. (fide *Koorders*, l.c.), *Vernacular*. "Panawar Beas" (Sundanese).

2. **T. zeylanica**, *Thwaites*, *Enum.* 264 (1861); *Kew Journ. Bot.* iii. t. 11 (1851); *Bedd. Fl. Sylv.* t. anal. 26, fig. 3 (1873); *Hk. f. Fl. Brit. Ind.* v. pt. ii. 488 (1890), excl. specimen burmanicum; *Trimen, Handb. Fl. Ceyl.* iv. 100 (1898).—*Epicarpurus zeylanica*, *Thwaites* in *Kew Journ. Bot.* iv. i. (1852).—*Diplocos zeylanica*, *Bureau* in *DC. Prodr.* xvii. 215 (1873).

INDIA. Ceylon: Haragam near Kandy, *Thwaites* 2213.

*Trimen* says this species is rather rare in low country from 1000-2000 ft., flowering in July, the male flowers yellow, the female green.

*Hooker's* identification of *Griffith's* Burma specimen (*Kew Distrib.* 4659) was, if only from a geographical point of view, worthy of a very close examination, and I find two clear differences between the Ceylon and Burma plants, the former having distinctly pedicellate male flowers and very characteristic rhomboid-elliptic leaves, the latter sessile male flowers and rather elongate-ovate, caudate-acuminate leaves. Accordingly, *Griffith's* plant is here made the type of a new species, *T. caudata*, *Hutchinson*.

3. **T. caudata**, *Hutchinson*, sp. nov.

*T. zeylanica*, *Hook. f. Fl. Brit. Ind.* v. pt. ii. 488, partim; *Kurz, For. Fl. Brit. Burm.* ii. 464.

*Frutex* vel arbor parva, spinosa, 1.7-3 m. alta; rami flexuosi, cortice brunneo minute puberulo obtecti; ramuli juniores laxè foliati, puberuli. *Folia* plus minusve elongato-ovata vel oblongo-elliptica, ad basin obtusum cuneata, in caudo integro longe acuminata, 5-14 cm. longa, 2-4 cm. lata, basin versus integra, ceterum crenato-serrata, tenuiter chartacea, glabra; costa supra inconspicua, infra prominens, basi 1 mm. crassa; nervi laterales utrinsecus circiter 8, arcuati, infra prominuli; petioli graciles, teretes, 3-5 mm. longi, puberuli; spinae axillares durae, usque ad 1.5 cm. longae. *Inflorescentia* ♂ brevis, puberula. *Perianthii* segmenta late ovata, obtusa. *Antherae* primum valde inflexae, demum erectae; filamenta gracilia, glabra. *Ovarium* rudimentarium conicum, glabrum. *Inflorescentia* axillaris, 3-4-flora; pedicelli 5 mm. longi, in fructu usque ad 1.5 cm. longi, fere glabri. *Perianthii segmenta* 4, oblonga, subacuta, leviter accrescentia, glabra. *Ovarium* valde obliquum; stylus crassus, ramis hispidis. *Fructus* oblique globosus, nitidus, circiter 6 mm. diametro.

BURMA. Upper Burma: Myitkyina District; woods towards the Serpentine Mines, Apr. 4, 1837, ♀, *Griffith* (Kew Distrib.) 4659; without definite locality, ♂, *Haines*.

ASSAM. Nowgong District: Lunding, Nov. 10, 1913, a small thorny tree 20-25 ft. high, with milky juice, ♀, *Upendranath Kanjilal* 2904.

4. **T. obtusa**, *Elmer*, Leaf. Philipp. Bot. v. 1813 (1913).

PHILIPPINES. Palawan: Puerto Princesa (Mt. Pulfar), Apr. 1911, ♂, *Elmer* 12966.

5. **T. ilicifolia**, *Vidal*, Revis, Pl. Vasc. Filip. 349 (1886).

*Balanostreblus ilicifolia*, Kurz in Journ. As. Soc. Beng. xlii. ii. 247. partim, quoad spec. Chittagongensem; et For. Fl. Brit. Burm. 465, partim; Hook. F. Fl. Brit. Ind. v. 544, partim. *T. triapiculata*, Gamble in Kew Bull. 1913, 188.

INDIA. Eastern Bengal: Chittagong, *Hooker & Thomson*.

BURMA. Bhamo, Sept., *J. Anderson*. Southern Shan States: Kengtung; Mong Nai, along streams in damp limestone gravel, 240 m., Mar. 9, 1911, *Robertson* 254-7.

INDO-CHINA. Prov. Bien Hoa: Mt. Lu, Mar. 1877, *Pierre* 3281.

MALAY PENINSULA. Lower Siam: Trang Island, Mar. 1881, *King's Collector* 1435. Perlis; Kanga, Mar. 1910, *Ridley* 14956; Kedah; Alasta, Feb. 1910, *Ridley* 14958; Pulau Adang, Apr. 1911, *Ridley* 15714; Penang Waterfall, Apr. 1890, *Curtis* 2289; Mar. 1915, *Ridley*; Pahang; Tsmmerloh, *Ridley* 2309a.

MALAY ARCHIPELAGO. Celebes: Minahassa Province, *Koorders* 19625.

PHILIPPINE ISLANDS. Luzon: various localities, *Vidal* 904, 905, 1783; *Loher* 5222, 5223; *Ahern* 14. Marinduque Island, South of Luzon, *Vidal* 1794, 1795. Paragua Island, *Vidal* 3770.

Basilan Island, *W. I. Hutchinson* For. Bur. no. 3443. Palawan Island; Puerto Princesa (Mt. Pulgar), Mar. 1911, *Elmer* 12853. Silanga, May 1913, *Merrill* 9603.

In Luzon the vernacular name is "Cuyos cuyos." Mr. H. N. Ridley informs me that the leaves of this plant in the Peninsula are gilded over by the Tamils and used as a substitute for holly at Christmas; the wood is used for walking-sticks, and is so hard and heavy that it sinks in water.

6. *T. laxiflora*, *Hutchinson*, sp. nov..

*Arbor* parva dioica, frequenter spinosa; rami flexuosi, juniores laxe foliati, puberuli. *Folia* ilicina, obovata vel obovato-oblancoata, apice obtusa et tridentata, basi cuneata, 4-7 cm. longa, 2-3.5 cm. lata, acute spinoso-dentata, rigide chartacea, sicco cinerea, glabra; costa media supra angusta, prominula, infra prominens, straminea; nervi laterales utrinsecus 7-8, gracillimi, marginem versus conjuncti, infra prominuli; petioli 5 mm. longi, puberulo-hispidi. *Inflorescentia* ♂ axillaris, pedunculata, dependens, circiter 1.5 cm. longa; pedunculus gracilis, 4 mm. longus, hispidulus. *Flores* subsessiles albi. *Perianthii segmenta* oblongo-lanceolata, acuta, fere glabra. *Flores* ♀ ignoti.

INDO-CHINA. Tonkin: near Tu-phap, in the woods, Apr. 1888, *Balansa* 2481, 2482.

7. *T. Balansae*, *Hutchinson*, sp. nov.

*Arbor* 7-8 m. alta; rami laxe foliati, sicco flavo-virides, glabri, profunde sulcati. *Folia* oblongo-elliptica vel obovato-elliptica, basi obtuse rotundata et leviter inaequilatera, apice in caudam 2-4 cm. longam subacutam integrum abrupte vel subsensim attenuata, 8-20 cm. longa, 3-7 cm. lata, obtuse crenato-serrata, basin versus integer. rigide chartacea, sicca pallide viridia, glabra; nervi laterales utrinsecus circiter 8, leviter arcuati, prope marginem ascendentes et eo subparalleles, infra prominentes, nervis tertiariis et venis infra laxis; petioli 5-8 mm. longi, interdum verruculosi. *Inflorescentia* ♂ spicata, axillaris, gracilis, usque ad 6 cm. longa. *Perianthii segmenta* puberula. *Flores* ♀ juniores non visi. *Perianthii fructiferi* segmenta coriacea, rotundata, usque ad 1 cm. longa. *Fructus* glaber, oblique obovoideus, stylo bilobato erecto coronatus; pedicelli usque ad 1 cm. longi.

INDO-CHINA. Tonkin: forests of the Lankok valley, Mar. 4, 1888, ♂, *Balansa* 2477; near the Thuang-Lam, May 2, 1888, ♀, *Balansa* 2478; in the woods at Tu-phap, May 1887, ♀, *Balansa* 2479.

*Species imperfecte cognita.*

8. *T. macrophylla*, *Boerl.* Hand. Fl. Ned. Ind. iii. 359 (1900); Koorders, Exkurs.-Fl. Java, ii. 87 (in obs.).—*Streblus macrophyllus*, Blume, Mus. Bot. Lugd.-Bat. ii. 80 (1856); Miq. Fl. Ind. Bat. i., pars. ii. 278 (1859). *Diplocos macrophylla*, Bureau in DC. Prodr. xvii. 216 (1873).

MALAY ARCHIPELAGO: Celebes; near Likupang, coll.?

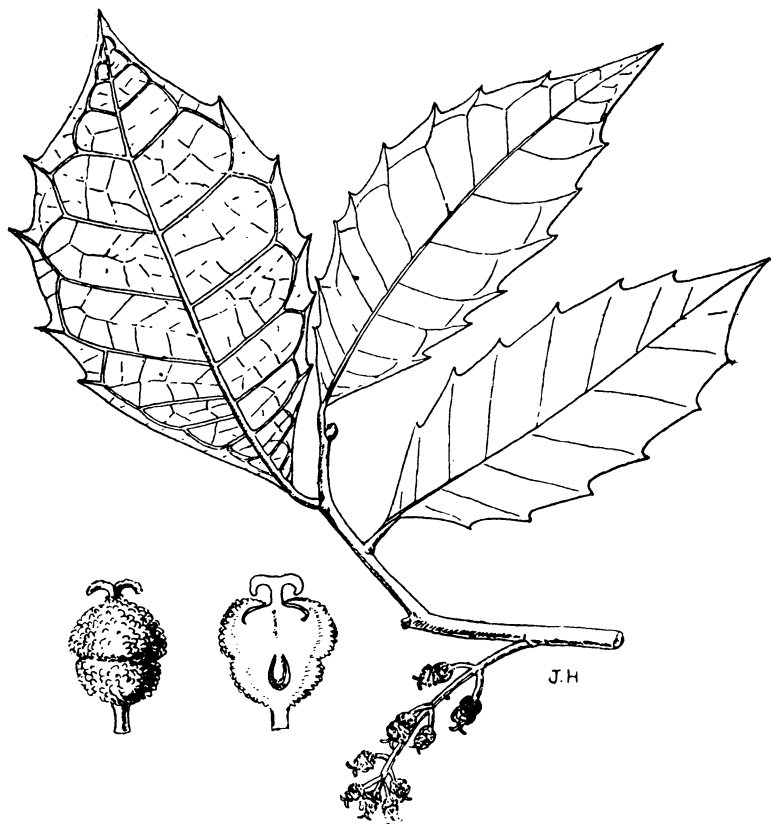
The only specimen of *Taxotrophis* at Kew from the Celebes is one (a single leaf) collected by Koorders, quoted under *T. ilicifolia*, with which it is apparently identical.

**Balanostreblus, Kurz.**

*Descr. emend.*—Flores dioici, masculi ignoti; foeminei racemosi; perianthium cum ovarii parte inferiore adnatum, medio constrictum, carnosum, verrucosum, apice perforatum, styli basin circumdatum, haud lobatum. *Ovarium* semisuperum, carnosum, 1-ovulatum, ovulo apice loculi pendulo; stylus brevis, e perianthii orificio protrudens, ramis 2 brevibus recurvatis crassis verruculosus. *Drupa* (ut videtur) perianthio carnosio verrucoso inclusa, monosperma.—*Arbor* parva, sempervirens, lactescens (*Kurz*); folia alterna, grosse spinoso-dentata et nervosa.

**B. ilicifolia, Kurz** in Journ. As. Soc. Beng. xlii. ii. 247, t. 19 (quoad description et iconum, excl. specim. e Chittagong.).

*Ramuli* divaricati, glabri, cortice cinereo verrucoso obtecti.



*Folia* petiolata, oblonga vel elliptico-oblonga, acute spinoso-acuminata, basi breviter cuneata, 5-10 cm. longa, 2.5-4 cm. lata

*grosse spinoso-dentata*, dentibus utrinsecus 3-9, rigide coriacea, glabra, supra nitida, infra leviter pallidiora et laxe reticulata; costa supra paullo immersa, infra valde prominens et semiteres, basi circiter 1.5 mm. crassa; nervi laterales utrinsecus 8-10, a costa sub angulo latissimo abeuntes, marginem versus prominenter bifurcati et conjuncti, juncturis in dentibus spinosis productis, supra vix evidentes, infra valde prominentes, nervis tertiariis laxis infra prominulis; petioli 4-6 mm. longi, 1.5 mm. crassi, transverse verrucosi. *Racemi* ♀ e ramis annotinis penduli, circiter 3 cm. longi, pauciflori; rhachis robustus, puberulus; bractee minutae; pedicelli crassi, 2.5-3 mm. longi, hispiduli. *Perianthium* circiter 4 mm. longum, apice perforatum, medio constrictum et superne ovario liberum, extra verruculosum, haud lobatum; ovarium carnosum, glabrum; stylus 1 mm. longus, ramis 1 mm. longis arcte recurvatis verruculosis.

BURMA. Known only from a cultivated specimen in the Calcutta Herbarium, probably grown from a plant or seeds collected at Ava by *J. Anderson*.

## XII.—ROSA GLUTINOSA.

R. A. ROLFE.

For some time it has been suspected that the Rose long cultivated and recently figured as *Rosa glutinosa* (Willmott, *Rosa*, p. 467, tab.) does not agree with the original *R. glutinosa*. Sibth. & Sm., at all events as figured by the authors, and a comparison of materials, with the aid of a specimen from the Sibthorpien Herbarium at Oxford, kindly lent by Prof. S. H. Vines, reveals an amount of confusion that it seems desirable to clear up as far as possible.

*Rosa glutinosa*, Sibth. & Sm., was originally described in 1806 (Sibth. & Sm. *Fl. Graec. Prodr.* i. p. 348), and based on "*R. cretica montana foliis subrotundis glutinosis et villosis*, Tourn. *Cor.* 43," the habitat being given as "In Cretae montibus Sphacioticis." A figure is also cited, which was subsequently published in Sibth. & Sm. *Fl. Graec.* t. 482. In this later work we find the additional references, "Lindl. *Ros.* 95," and "*R. pumila alpina, pimpinellae exacte foliis sparsis, spinis incurvis, aequae purpurea*, Cupan. *Panphyt.* ed. 1, v. i. t. 61." Turning to Lindley, we find the further synonym, "*R. rubiginosa cretica*, Redout. *Ros.* i. 93, 125, t. 50," with the localities, "Hab. in Parnasso, Sibthorp; Siciliae montibus (Cupani); Cretae, Tournefort (v. s. sp. herb. Smith & Banks.)" There is also the note, "For the synonym of Cupani, I trust to Sir James Smith. No copy of the *Panphyton* containing t. 61 has fallen in my way. . . It appears from Redoute's figure, which is less happy than usual, to be cultivated in France; our own gardens it has not yet reached." Comparison of the figures and specimens cited shows a considerable amount of confusion, and the references cited include more than a single species.

*R. glutinosa* was thus based upon materials from two different sources, first on the "*Rosa cretica montana*" of Tournefort,