

Nothocnide (Urticaceae) in Malesia

by

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Blume established this genus in 1856 with one species *N. repanda* which he had previously described as *Urtica repanda*. Weddell in his Monograph of the *Urticaceae* considered this congeneric with *Pipturus* and had it reduced accordingly. Here in *Pipturus* the genus *Nothocnide* stayed and was subsequently forgotten.

It was not till 1933, that the genus (though not its name) was brought out again. Skottsberg, while revising the genus *Pipturus*, discovered, independently and quite unaware of Blume's publication, that that genus was unnatural and that a small group of climbing species could easily be distinguished from the others as a distinct genus. Thus *Pseudopipturus* was established to accommodate these climbers with Blume's *Urtica repanda* as the type species. This was followed by all subsequent authors including the compilers of *Index Genericorum* without their realising that the name *Pseudopipturus* is quite superfluous.

Credit for the discovery of this "lost" name goes to Backer and Bakhuizen who, in their joint work *Flora of Java* (1965) quite rightly re-established it in place of *Pseudopipturus*. Only one combination, however, was made by them.

It is partly for this reason that this paper is now presented i.e. to effect the remaining combinations. At the same time, opportunity is here taken to have the malesian species of the genus revised as a further material towards an ultimate monograph of the whole family.

Nothocnide Blume

Mus. Bot. Lugd. Bat. 2: tab. 14 (1856); Backer & Bakh. v/d. Brink, Fl. Java, 2: 49 (1965). — *Pipturus* Wedd. in Ann. Sc. Nat. ser. 4. 1: 196 (1854), *partim*. — *Pseudopipturus* Skottsberg in Acta Hort. Gothoburg. 8: 117 (1933); Hutchinson, Genera Flow. Pl. 2: 191 (1967).

Closely related to *Pipturus* from which it differs in the following characters: — (a) climbers or scramblers, (b) lamina margin smooth, not toothed, (c) except for *N. discolor*, undersides of lamina without the white felt, (d) the female perianth fleshy and adnate to the ovary.

Species 5, mainly Malesia. Type species: *N. repanda* (B1.) B1.

Dioecious soft-woody climbers devoid of irritant hairs. *Leaves* spirally arranged, stipulate, petiolate, simple. *Lamina* elliptic to obovate, prominently 3-veined, with fine intercostals almost perpendicular to the midrib; margin smooth; the upperside side often

dense with punctiform cystoliths, usually strigose. *Stipules* connate, intrapetiolar, bifid at the apex, the two ridges on the outside strigose. *Inflorescences* spicate, axillary, with flowers in glomerules at regular intervals all the usually unbranched peduncle. *Male flowers* sessile to subsessile, ca. 1 mm. long and broad, 4-merous; the rudimentary ovary surrounded by long thin white hairs. *Female flowers* sessile; perianth minutely toothed at the apex, ca. 1 mm. long, adnate to the ovary; stigma long ligulate. *Achenes* 1–1.5 mm. long and broad, obovoid often spherical.

Key to the Species

- 1-a. Undersides of lamina covered with a dense
while felt **N. discolor**
- b. Undersides of lamina glabrous to villose but without the
dense white felt **2.**
- 2-a. Undersides of lamina dense pubescent to villose; twigs,
petioles and peduncles densely strigose **N. mollissima**
- b. Not this combination of characters **3.**
- 3-a. Lamina with only one pair of main lateral veins arising from
the base and reaching to the apex **N. melastomatifolia**
- b. Lamina with 2 to 3 pairs of main lateral veins; one pair
arising from the base as in (3a) above but the others arising
from the mid-rib near the apex **N. repanda**

- 1. Nothocnide repanda** (Bl.) Bl. Mus. Bot. Lugd. Bat. 2: tab. 14 (1856); Backer & Bakh. v/d Brink f. Fl. Java, 2: 49 (1965). — *Urtica repanda* Bl. Bijdr. 501 (1825); Steud. Nom. Bot. ed. 2. 2: 736 (1841). — *Boehmeria repanda* (Bl.) Hasskl. Cat. Hort. Bot. Bog. 79 (1844). — *Boehmeria trinervis* Miq. Pl. Jungh. 36 (1851). — *Pipturus repandus* (Bl.) Wedd. in Ann. Sc. Nat. ser. 4. 1: 196 (1854) et in Arch. Mus. Hist. Nat. Paris 9: 448 (1857) et in DC. Prodr. 16(1): 235¹⁹ (1869). — *Pipturus ellipticus* Wedd. in Ann. Sc. Nat. ser. 4. 1: 197 (1854). — *Pipturus succulentus* Elm. Leaflet. Philip. Bot. 3: 897 (1910); Robinson in Philip. J. Sc. Bot. 6: 15 (1911); Merr. Enum. Phil. Fl. Pl. 2: 95 (1923). — *Pseudopipturus repandus* (Bl.) Skottsb. in Acta Hort. Gothob. 8: 117 (1933). — *Pseudopipturus succulentus* (Elm.) Skottsb. in *op. cit.* (1933). — *Pipturus subalpinus* Elm. Leaflet. Philip. Bot. 9: 3221 (1934).

Woody climber with obovate lamina, scarbrous on the lower side and on the veins only of the upper side, with at most 3 pairs of main lateral veins, 2 of which branching off above the mid-point and usually towards the apex. — **Fig. 1.**

Distribution: Sumatra, Java, Bali, Borneo, Philippines, Celebes, Moluccas, New Guinea, Bismark Archipelago and Solomon Islands.

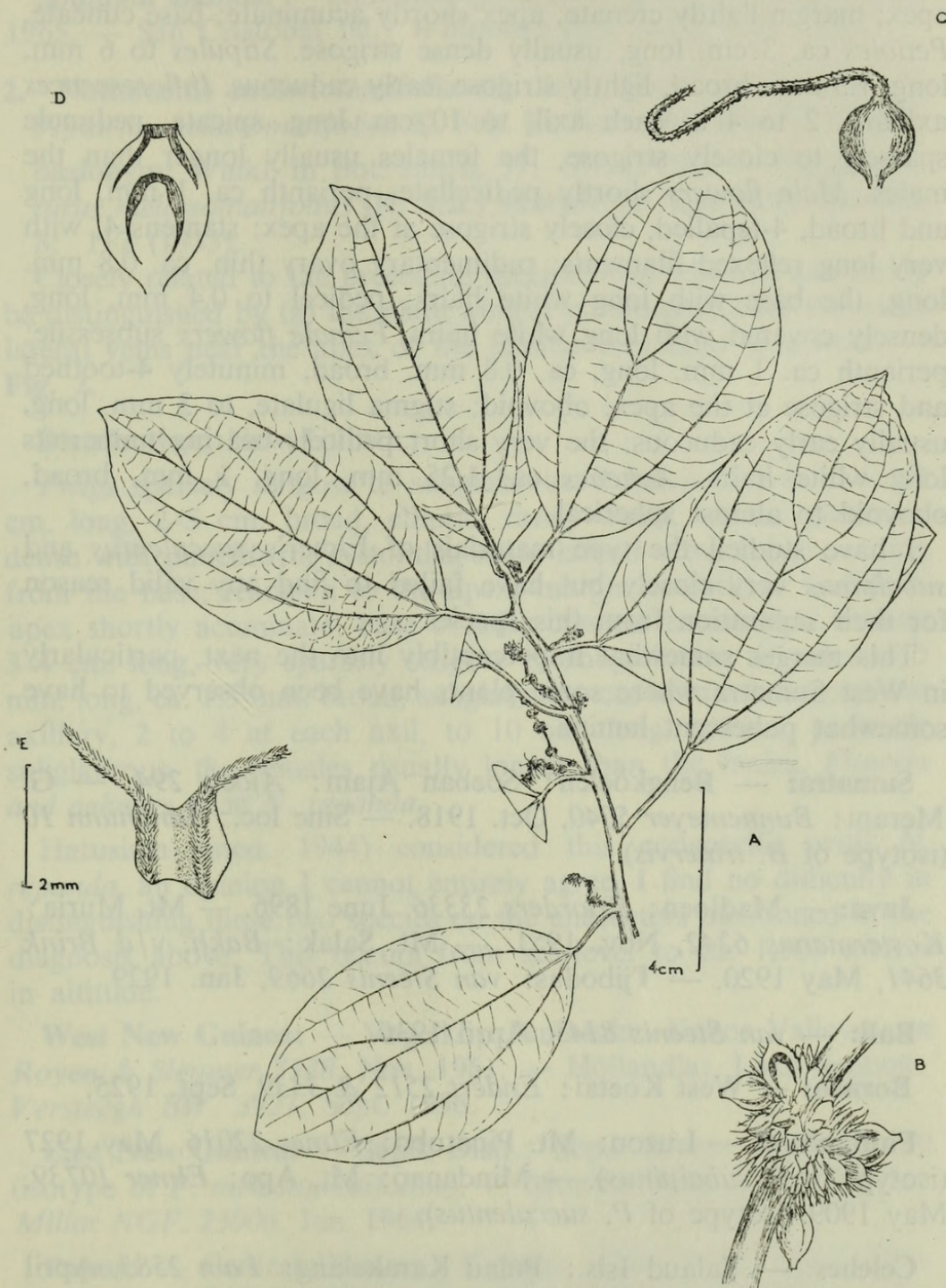


Fig. 1. — *N. repanda*:

A = twig; B & C = female flowers;

D = female flower (v.s.); E = stipule.

Twigs closely strigose. *Lamina* ca. 12–15 cm. long, 5–7 cm. broad, obovate; the upperside strigose only on the veins, dense with punctiform cystoliths; the lowerside generally strigose, more so on the veins, also dense with punctiform cystoliths; main lateral veins at most 3 pairs, one pair at the base, the other 2 near the apex; margin lightly crenate; apex shortly acuminate; base cuneate. *Petioles* ca. 3 cm. long, usually dense strigose. *Stipules* to 6 mm. long, 1.5 mm. broad, lightly strigose, early caducous. *Inflorescences* axillary, 2 to 4 at each axil, to 10 cm. long, spicate, peduncle sparsely to closely strigose, the females usually longer than the males. *Male flowers* shortly pedicellate; perianth ca. 1 mm. long and broad, 4-lobed, closely strigose at the apex; stamens 4, with very long reflexed filaments; rudimentary ovary thin, ca. 0.8 mm. long, the base with long white hairs; pedicel to 0.4 mm. long, densely covered with long white hairs. *Female flowers* subsessile; perianth ca. 1 mm. long, ca. 0.8 mm. broad, minutely 4-toothed and strigose at the apex, obovoid; stigma ligulate, to 3 mm. long, usually early caducous; the very short pedicels bearing numerous long white hairs. *Achenes* ca. 1.25 mm. long, 1 mm. broad, obovoid to almost spherical.

I have studied the type materials of Elmer's *succulentus* and *subalpinus* very closely but have failed to find any valid reason for their separation from this species.

This merges somewhat imperceptibly into the next, particularly in West Sumatra where some plants have been observed to have somewhat pubescent lamina.

Sumatra: — Bengkoelen: Soeban Ajam: *Ajoeb* 294. — G. Merapi: *Bunne Meyer* 5040, Oct. 1918. — Sine loc.: *Junghuhn* 10 (isotype of *B. trinervis*).

Java: — Madioen: *Koorders* 23336, June 1896. — Mt. Muria: *Kostermans* 6242, Nov. 1951. — Mt. Salak: *Bakh. v/d Brink* 3641, May 1920. — Tjibodas: *van Steenis* 2669, Jan. 1929.

Bali: — *van Steenis* 8145, April 1936.

Borneo: — West Koetai: *Endert* 2512 & 3339, Sept. 1925.

Philippines: — Luzon: Mt. Pinatubo: *Elmer* 22016, May 1927 (isotype of *P. subalpinus*). — Mindanao: Mt. Apo: *Elmer* 10739, May 1909 (isotype of *P. succulentus*).

Celebes: — Talaud Isls.: Pulau Karakelang: *Lam* 2583, April 1926. — Menado: sine loc.: *Koorders* 19064 & 19069, Jan.–Feb. 1895.

Moluccas: — Amboina: *Robinson, Pl. Rumph. Amboin* 321 & 322, July–Nov. 1913. — Ceram: *Rutten* 2063, Feb. 1919. — Ternate: Goeni Senang: *Beguin* 1277 & 1322, Jan. 1921.

West New Guinea: — Rouffaer River: *Docters van Leeuwen* 9742 & 10080, Aug. 1926.

East New Guinea: — Sepik Distr.: Blini River: *Darbyshire & Hoogland* 8285, July 1961.

Papua: — Milne Bay: Goodenough Island: *Brass* 25119, Oct. 1953.

Bismark Archip.: — New Britain: Torlu River: *Sayers* NGF. 24216, March 1965. — Mussau Isl.: *Koie & Sandermann* 1407 & 1605, Jan.-Feb. 1962.

Solomon Islands: — Kolombangana Isl.: *Hunt* RSS. 2461, Aug. 1965. — San Cristobal Isl.: *Whitmore* RSS. 6138, July 1965.

2. *Nothocnide melastomatifolia* (K. Sch.) Chew, comb. nov. — *Pipturus melastomatifolius* K. Sch. Fl. Kais. Wilhelm. 37 (1889), **basionym**; Winkl. in Bot. Jahrb. 57: 593 (1922). — *Pseudopipturus melastomatifolius* (K. Sch.) Skotts. in Acta Hort. Gothob. 8: 117 (1933).

Closely related to the preceding species from which it can easily be distinguished by (a) the plant almost glabrous and (b) the main lateral veins near the apex of the lamina very faint or absent. — **Fig. 2.**

Distribution: New Guinea.

Twigs sparsely strigose to subglabrous. *Lamina* (5-) 8-10 (-15) cm. long, 2-5 cm. broad, elliptic, rarely ovate, almost glabrous, dense with punctiform cystoliths; main lateral veins 1 pair, arising from the base, reaching to the apex; margin smooth to undulate; apex shortly acuminate; base broadly cuneate to rounded. *Petiole* 3-4 cm. long, very sparsely strigose to subglabrous. *Stipules* to 5 mm. long, ca. 1.5 mm. broad, subglabrous, caducous. *Inflorescences* axillary, 2 to 4 at each axil, to 10 cm. long, spicate, peduncle subglabrous, the females usually longer than the males. *Flowers and achenes* as in *N. repanda*.

Hatusima (ined. 1944) considered this conspecific with *N. repanda*, an opinion I cannot entirely agree. I find no difficulty in distinguishing these two species on the characters mentioned in the diagnosis above. This occurs from sea-level to ca. 1,500 metres in altitude.

West New Guinea: — Vogelkop Peninsula: Kebor Valley: *van Royen & Sleumer* 7328, Nov. 1961. — Hollandia: Lake Sentani: *Versteegh* BW. 3921, Sept. 1956.

East New Guinea: — Sepik Distr.: Sepik River: *Hollrung* 802 (isotype of *P. melastomatifolius*). — Morobe Distr.: near Bulolo: *Millar* NGF. 23006, Jan. 1964.

Papua: — Central Division: Koitaki: *Carr* 11963, April 1935. — Northern Division: Isuarara: *Carr* 15424, Feb. 1936.

3. *Nothocnide mollissima* (Bl.) Chew, comb. nov. — *Urtica mollissima* Bl. Bijdr. 501 (1825), **basionym**. — *Pipturus mollissimus* (Bl.) Wedd. in Arch. Mus. Hist. Nat. Paris 9: 449 (1857) et in DC. Prodr. 16(1): 235-19 (1869); Hk. f. Fl. Br. Ind. 5: 589 (1888); Ridl. Fl. Mal. Pen. 3: 367 (1924). — *Pipturus repandus* var. *Rufescens* Winkl. in Bot. Jahrb. 57: 593 (1922). — *Pseudopipturus mollissimus* (Bl.) Merr. in Papers Mich. Acad. Sc. 23: 177 (1938).



Fig. 2.— *N. melastomatifolia*.

This species distinguishes itself by the twigs, petioles and peduncles being densely strigose and the undersides of the lamina dense pubescent to villose.

Distribution: Borneo, Malay Peninsula, Sumatra, Java, Bali, New Guinea and Solomon Islands.

Twigs densely strigose. *Lamina* ca. 10–15 cm. long, 6–9 cm. broad, broad elliptic to slightly obovate; the upperside dense appressed strigose, the lowerside dense pubescent to villose; main lateral veins ca. 3 pairs, one pair at the base, the others near the apex; margin smooth; apex bluntly acuminate; base broadly cuneate. *Petioles* to 4 cm. long, densely strigose. *Stipules* to 5 mm. long, ca. 2 mm. broad, subglabrous, caducous. *Inflorescences* axillary, 2–4 at each axil, less than 9 cm. long; peduncle densely strigose, the females slightly longer. *Flowers and achenes* as in *N. discolor*.

I do not agree with J. J. Smith and Bakhuizen v.d. Brink that this species is conspecific with *N. repanda*. These two are very easily separated from each other on the characters enumerated above.

From collections available for my study, this species seems more common in the Malay Peninsula than in Java where the holotype was collected.

Borneo: — Sarawak: Bau Distr.: *Chew Wee-Lek CWL*. 554 & 564, July 1963; *Sinclair* 38461, March 1949. — sine loc.: *Ridley* 12326, Sept. 1909.

Malay Peninsula: — Kedah: Inchong Estate: *Spare* 37606, Aug. 1941. — Penang: Balik Pulau: *Ridley* 8024, March 1896. — Perak: Larut River: *Wray* 2464, July 1888. — Selangor: Batu Caves: *Ridley* 395, June 1889. — Johore: Kukub: *Burkill* 118, Aug. 1913.

Sumatra: — Asahan: Hoela Padang: *Krukoff* 4446, Dec. 1932. — Lampong: Wai Lima Estate: *Iboet* 444, Dec. 1921. — Sibolangit: *Lorzing* 5466, Dec. 1917.

Java: — Bantam: Danoe-moeras: *Koorders* 40603, May 1912. — Besoeki: Djember: *Koorders* 20736, Nov. 1895. — Kurupang: *Blume s.n.* (Leiden herb. 908-189-1402, type of *Urtica mollissima*).

Bali: — Mt. Batukau: *Kostermans et al.* KKSS. 121, June 1958.

New Guinea (West): — Geelvink Bay: near Nabire: *Kanehira & Hatusima* 11772, Feb. 1940.

New Guinea (Papua): — Milne Bay: Mt. Daymanu: *Brass* 23336, July 1953.

Solomon Islands: — Santa Ysabel: *Beer BSIP*. 7723, Jan. 1967.

4. **Nothocnide discolor** (C. B. Rob.) Chew, **comb. nov.** — *Pipturus discolor* C. B. Rob. in Philip. J. Sc. Bot. 6: 15 (1911) **basionym**; Merr. Enum. Phil. Fl. Pl. 2: 95 (1923). — *Pseudopipturus discolor* (C. B. Rob.) Skottsb. in Acta Hort. Gothob. 8: 117 (1933).

This species distinguishes itself by the lamina being covered on the underside with a white felt and the petioles and twigs densely strigose, often with reddish-brown hairs.

Distribution: Philippines & New Guinea.

Twigs densely reddish-brown strigose. *Lamina* (5-) 8-12 (-15) cm. long, (3-) 4-6 (-8) cm. broad, obovate, rarely broad elliptic; the upperside strigose only on the veins, dense with punctiform cystoliths; the lowerside densely strigose on the veins and intercostals, the interspaces covered with a fine dense white felt; main lateral veins 2 to 3 pairs, one pair arising from the base, the other 2 near the apex; margin smooth to undulate; apex blunt acuminate to acute. *Petioles* ca. 3-4 cm. long, dense reddish-brown strigose. *Stipules* less than 5 mm., densely woolly, caducous. *Inflorescences* axillary, 2 to 4 at each axil, up to 8 cm. long, spicate, peduncle dense reddish-brown tomentose, both sexes of about the same length. *Male flowers* fairly dense strigose at the apical half, the rest as in *N. repanda*. *Female flowers and achenes* as in *N. repanda*.

I have compared the New Guinea populations with those of the Philippines and am quite satisfied that they are conspecific. The disjunct distribution is probably due to lack of collections from the Celebes and the Moluccas.

Philippines: — Mindanao: Lake Lanao: Clemens 676, Sept. -Oct. 1906 (type of *P. discolor*).

New Guinea (North-East): — Morobe Distr.: Kipu: Streimann & Kairo NGF. 26146, Jan. 1966.

New Guinea (Papua): — Northern Div.: Isuarara: Carr 15911, March 1936.

Extra — Malesian Species

Pseudopipturus rotundifolius (Poir.) Skottsberg in Acta Hort. Gothoburg. 8: 117 (1933). — *Urtica rotundifolia* Poir. Encycl. 4: 644 (1798). — *Pipturus rotundifolius* (Poir.) Wedd. in Ann. Sci. Nat. ser. 4. 1: 197 (1854).

Distribution: Mauritius

This climbing species is claimed to belong to this genus. As I have not seen it, I refrain from having it transferred.

INDEX OF COLLECTIONS EXAMINED

Ajoeb:

294	=	repanda
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Backer, C. A.:

1794	=	repanda
4357	=	repanda
7369	=	mollissima
7513	=	repanda
8776	=	repanda
11862	=	repanda
11928	=	repanda
16266	=	repanda
33012	=	repanda

Bakhuizen v.d. Brink, R. C.

3248	=	repanda
3641	=	repanda

Beer, W.:

BSIP. 5104	=	mollissima
BSIP. 7723	=	mollissima

Beguin, V.:

1277	=	repanda
1322	=	repanda

Blume, C. L.:

L. herb. 908-189-1402	=	mollissima
L. herb. 908-189-1434	=	mollissima

Boerlage, J. G.:

118	=	repanda
125	=	repanda
252	=	repanda

Brass, L. J.:

23336	=	mollissima
25119	=	repanda

Bunnemeyer, H. A. B.:

5040	=	repanda
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Burkill, I. H.:

118	=	mollissima
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Carr, C. E.:

11963	=	melastomatifolia
13972	=	melastomatifolia
15424	=	melastomatifolia
15911	=	discolor
16145	=	melastomatifolia
16475	=	melastomatifolia

Carrick, J.:

JC. 1493	=	mollissima
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Chew Wee-Lek:

CWL. 554	=	mollissima
CWL. 564	=	mollissima

Clemens, M. S.:

676 (type!)	=	discolor
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Curtis, C.:

673	=	mollissima
1032	=	mollissima

Danser, B. H.:

6722	=	repanda
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Darbyshire & Hoogland:

8285	=	repanda
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Dissing et al.:

2362	=	repanda
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Docters van Leeuwen, W. M.:

9742	=	repanda
10080	=	repanda
12158	=	repanda

Elmer, A. D. E.:

7468	=	repanda
7786	=	repanda
10043	=	repanda
10241	=	repanda
10739 (type!)	=	repanda
13859	=	discolor
14467	=	repanda
17531	=	repanda
17639	=	repanda
22016	=	repanda

Endert, F. H.:

2512	=	repanda
3339	=	repanda

Eyma, P. J.:

2398	=	repanda
3172	=	repanda

Hollrung, M.:

802	=	melastomatifolia
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Holtum, R. E.:

19881	=	mollissima
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Hume, H. L.:

7134	=	mollissima
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Hunt, P. F.:

RSS. 2461	=	repanda
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Iboet:

27	=	repanda
254	=	mollissima
378	=	repanda
444	=	mollissima

Junghuhn, Fr.:

10	=	repanda
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Kanehira & Hatusima:

11772	=	mollissima
14219	=	melastomatifolia

Koens, A. J.:

306	=	repanda
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Koie & Sandermann:

1407	=	repanda
1605	=	repanda

Koorders, S. H.:

19064	=	repanda
19069	=	repanda
20736	=	mollissima
23336	=	repanda
23939	=	repanda
24426	=	repanda
29109	=	mollissima
32241	=	repanda
40464	=	repanda
40543	=	mollissima
40603	=	mollissima

Kornassi:

908	=	repanda
1003	=	repanda
1086	=	repanda
1550	=	repanda

Kostermans, A.:

6242	=	repanda
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Kostermans et al.:

KKSS. 121	=	mollissima
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Krukoff, B. A.:

4446	=	mollissima
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Lam, H. J.:

2583	=	repanda
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Lorzing, J. A.:

5466	=	mollissima
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Mendoza, D. R.:

18362	=	repanda
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Millar, A. N.:

NGF. 23006	=	melastomatifolia
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Millard, A. H.:

1670	=	mollissima
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Mousset, J. P.:

743	=	repanda
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Nakissi, A.:

BSIP. 8078	=	repanda
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Nur, Md.:

SFN. 33968	=	mollissima
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Oldenborgh, J. van:		
24	=	repanda
Pleyte, D.:		
735	=	melastomatifolia
Rahmat si Toroos:		
55	=	mollissima
Ramos, M.:		
39404	=	repanda
Ramos & Edano:		
30760	=	repanda
49545	=	discolor
75310	=	repanda
Rant, A.:		
155	=	repanda
804	=	repanda
Ridley, H. N.:		
395	=	mollissima
3360	=	mollissima
8024	=	mollissima
10199	=	mollissima
12326	=	mollissima
Robinson, C. B.:		
Pl. Rumph. 321	=	repanda
Pl. Rumph. 322	=	repanda
Royen, P. van:		
NGF. 18249	=	repanda
Royen & Sleumer:		
7328	=	melastomatifolia
Rutten, L. M. R.:		
330	=	repanda
336	=	repanda
1586	=	repanda
2063	=	repanda
Sayers, C. D.:		
NGF. 18070	=	melastomatifolia
NGF. 24216	=	repanda
Schlechter, R.:		
14603	=	melastomatifolia
Sinclair, J:		
38461	=	mollissima
Spare, G. H.:		
37606	=	mollissima
Steenis, C. G. G. J. van:		
2669	=	repanda
8145	=	repanda
12667	=	repanda

Streinmann & Kairo:

NGF. 26146 = discolor

Sulit, M. D.:

2769 = repanda

Teona, R.:

BSIP. 6219 = repanda

Teysmann, J. E.:

6758 = repanda

Versteeg, G.:

1733 = repanda

Versteegh, Chr.:

BW. 3921 = melastomatifolia

Vesterdal, A.:

19 = mollissima

Whitmore, T. C.:

BSIP. 2270 = repanda

RSS. 6138 = repanda

Winckel, W .F.:

1440 = repanda

Womersley & Taylor:

4786 = repanda

Wray, L.:

2464 = mollissima



Chew, Wee-Lek. 1969. "Nothocnide (Urticaceae) in Malesia." *The Gardens' bulletin, Singapore* 24, 361–373.

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