

SOME NEW COMBINATIONS IN *LITHOCARPUS* BLUME (FAGACEAE)

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A B S T R A C T

New combinations under *Lithocarpus* Blume are given to replace *Quercus spicata* Sm. and its varieties.

In the year (1809), Humboldt & Bonpland described *Quercus spicata* as a new American species. Later, Smith (1819) erroneously adopted the binomial *Quercus spicata* for a quite different Indian species of *Quercus* Linn., without being aware that the specific name 'spicata' was already preoccupied under the genus *Quercus* Linn., for the American plant. According to the Art. 64 of the International code of Botanical nomenclature (1966), the binomial *Quercus spicata* Sm. should be rejected as it is a later homonym to that of *Quercus spicata* Humb. and Bonpl.

Hook. f. (1888) and King (1889) included the illegitimate named taxon *Quercus spicata* Sm. and its varieties under the section *Pasania* (Oerst.) Miq. of the genus *Quercus* Linn. Later, Rehder (1919) transferred the above species and some of its varieties to *Lithocarpus* Bl., a genus accepted by the modern taxonomists (Merrill, 1941; Barnett, 1944; Forman, 1964) as a distinct from *Quercus* Linn. with *Pasania* Oerst. as its synonym. However, Hook. f. (1888) and King (1889) recognised *Lithocarpus* Bl. as a section of *Quercus* Linn.

Therefore the author proposes the following new combinations for this Indian plant and its varieties under *Lithocarpus* Bl. to replace the illegitimate named taxon *Quercus spicata* Sm. and its varieties.

Lithocarpus grandifolius (D. Don) S. N. Biswas, comb. nov. var. ***grandifolius***

Quercus grandifolia D. Don in Lamb. Gen. Pin. 2:27, t. 8, 1824, Prodr. Fl. Nep. 57, 1825 & in Spreng. Syst. 3: 856, 1826; Hook. f. in Fl. Brit. Ind. 5:609, 1888 (pro syn); King in Ann. Royl. Bot. Gard. Cal. 2:47, 1889 (pro syn).

Quercus spicata Sm. in Rees Cyclop. 29: 1819 (non Humb. & Bonpl. 1809); Don Prodr. Fl. Nep. 56, 1825; Wall. Pl. As. Rar. 1:40, t. 46, 1830; Miq. Fl. Ind. Bat. 1:846, 1856 & Ann. Mus. Bot. Lugd. Bat. 1:106, 1863; DC. Prodr. 16:85, 1864;

Brand. For. Fl. 2:489, 1874; Kurz, For. Fl. 2:486, 1877; Gamb. Man. Ind. Timb. 385, 1881; Wenzig in Jahrb. Bot. Gart. Berl. 4:224, 1886; Hook. f. loc. cit. 609; King loc. cit. 47, t. 41, 1889; Cowan and Cowan Trees. North Beng. 132, 1929; Bor in Man. Ind. For. Bot. 122, 1953; Kanai in Fl. East Himal. 52, 1966.

Quercus racemosa Jack in Mal. Misc. 7:86, 1820 (non Lamk. 1785).

Quercus elegans Bl. in Verh. Bat. Gen. 9:208, 1825; Bijd. Fl. Nederl. Ind. 1825; Backer & Bakh. f. Jav. 2:7, 1965.

Quercus arcaula Ham. ex Don Prodr. Fl. Nep. 56, 1825 & in Spreng. Syst. 3:857, 1826.

Quercus squamata Roxb. Fl. Ind. 3:638, 1832.

Quercus pyriformis Bl. in Mus. Bot. Lugd. Bat. 1:304, 1850.

Pasania spicata Oerst. in Kjoeb. Vidensk. Meddel. 83, 1866; Gamb. in Journ. As. Soc. Beng. 75 (4): 419, 1915; Kanjilal et al. Fl. Assam 4:314, 1940 [as *Pasania spicata* (Sm.) Chatterjee].

Lithocarpus spicata (Sm.) Rehd. & Wils. Journ. Arn. Arb. 1 (1): 66, 1919; Barnett in Trans. Proc. Bot. Soc. Edin. 34:174, 1944 ('spicatus').

It is evident from the above list of synonyms that the earliest name for this plant is *Quercus spicata* Sm., but this can not be taken up here, as it is illegitimate by being a later homonym to that of *Quercus spicata* Humb. & Bonpl. *Quercus racemosa* Jack, the next earliest name is also illegitimate as it is a later homonym to *Quercus racemosa* Lamk. The next earliest valid legitimate binomial for this plant is *Quercus grandifolia* D. Don. Hence the author proposes the above new combination, with *Quercus grandifolia* D. Don as its basionym.

var. ***glaberrimus*** (Bl.) S. N. Biswas, comb. nov.

Quercus glaberrima Bl. in Verh. Bat. Gen. 9:210, t. 1, 1825, Bijdr. Fl. Nederl. Ind. 1:519, 1825 & Fl. Jav. Cupul. 17, t. 8, 1829.

Quercus spicata var. *glaberrima* (Bl.) DC. Prodr. 16:86, 1864; Hook. f. loc. cit. 610; King loc. cit. 48.

var. **brevipetiolatus** (DC.) S. N. Biswas, comb. nov.
Quercus spicata var. *brevipetiolata* DC. Prodr. 16:86, 1864; Hook. f. loc. cit. 610; King loc. cit. 48; Kanai loc. cit. 52.

var. **gracilipes** (Miq.) S. N. Biswas, comb. nov.
Quercus gracilipes Miq. Fl. Ind. Bat. Suppl. 1: 347, 1860.

Quercus spicata var. *gracilipes* (Miq.) Miq. in Ann. Mus. Lugd. Bat. 1:106, 1863-64; DC. Prodr. loc. cit. 86; Hook. f. loc. cit. 610; King loc. cit. t. 42.

Pasania spicata var. *gracilipes* (Miq.) Schky. in Bot. Jahrb. 47:664, 1912.

Lithocarpus spicata var. *gracilipes* Rehder in Journ. Arn. Arb. 1:131, 1919.

var. **placentarius** (Bl.) S. N. Biswas, comb. nov.

Quercus placentaria Bl. Bijdr. Fl. Nederl. Ind. 1:518, 1825, Fl. Jav. Cupul. 19, t. 9. 1829 & Mus. Bot. Lugd. Bat. 1:291, 1850; Miq. in Pl. Jungh. 1:10, 1851; DC. loc. cit. 87, Wenzig loc. cit. 226.

Quercus spicata var. *placentaria* (Bl.) Miq. in Fl. Ind. Bat. 1:849, 1856; Miq. loc. cit. 849.

Quercus depressa Bl. in Verh. Bat. 9:209, t. 2. 1825 (non Humb. & Bonpl. 1809-10).

Quercus spicata var. *depressa* (Bl.) King in Ann. Royl. Bot. Gard. 2:48, t. 43. 1889.

De Candolle (loc. cit.) reduced *Quercus depressa* Bl. to a synonymy of *Quercus placentaria* Bl., a species maintained by De Candolle as distinct from *Quercus spicata* Sm. King. (loc. cit.) reduced the same to a variety of *Quercus spicata* Sm. but erroneously adopted the epithet 'depressa' in its new position. The binomial *Quercus depressa* Bl. is illegitimate as it is a later homonym and should not be taken up here. The next valid legitimate name, which was adopted by De Candolle is *Quercus placentaria* Bl. for his combined taxon. Therefore the author proposes the above new combination using *Quercus placentaria* Bl. as its basionym.

var. **microcalyx** (Korths.) S. N. Biswas, comb. nov.

Quercus microcalyx Korths. in Verh. Nat. Gesch. Bot. 204, 1844; Oudeman in Annot. Cupulif. Jav. 6, t. 4: 1865.

Quercus spicata var. *microcalyx* (Korths.) DC. Prodr. 16:86, 1864; Hook. f. loc. cit. 610; King loc. cit. 48.

var. **collettii** (King) S. N. Biswas, comb. nov.

Quercus spicata var. *collettii* King Hook. f. in Fl. Brit. Ind. 5:610, 1888; King loc. cit. 49, t. 42.

Quercus spicata var. *chittagonga* King, has been raised to the specific rank by Hickel & Camus (1921) and transferred to *Pasania* Oerst. This specific status of the variety has been accepted by Merrill (1941) who transferred and made effective combination under *Lithocarpus* Bl., a genus to which *Pasania* Oerst. has been reduced as a synonym. The presently accepted nomenclature of this plant is therefore as follows.

Lithocarpus chittagongus (King) Merrill in Brittonia 4:39, 1941 ('Chittagonga').

Quercus spicata Sm. var. *chittagonga* King Hook. f. in Fl. Brit. Ind. 5:610, 1888; King in Ann. Royl. Bot. Gard. Cal. 2:49, t. 42. 1889.

Lithocarpus spicata Rehd. & Wils. var. *chittagonga* Rehd. in Journ. Arn. Arbor. 1:131, 1919.

Pasania spicata Oerst. var. *chittagonga* Schottky in Bot. Jahrb. 47:665, 1912.

Pasania chittagonga Hickel & Camus in Ann. Sc. Nat. Bot. 3:309, 1921; Lecomte in Fl. Gen. Ind. Chine 5:972, 1929.

Lithocarpus chittagongus (Hickel & Camus) Barnett in Trans. & Proc. Bot. Soc. Edin. 34:174, 1944.

REFERENCES

- BARNETT, E. C. Keys to the species groups of *Quercus*, *Lithocarpus* and *Castanopsis* of Eastern Asia, with notes on their distribution. *Trans. bot. Soc. Edinb.* 34: 159-182, 1944.
- BLUME, C. L. *Bijdragen Tot De Flora van Nederlandsch Indie* 1: 526, 1825.
- FORMAN, L. L. *Trigonobalanus*, a new genus of Fagaceae, with notes on the classification of the family. *Kew Bull.* 17(3): 381-396, 1964.
- HICKEL, R. AND A. CAMUS. Les Chênes d'Indo-Chine. *Ann. Sci. nat. Bot.* 3: 309, 1921.
- HOOKE, J. D. *Flora of British India* 5: 609-610, 1888.
- HUMBOLDT, F. A. VON AND A. BONPLAND. *Plantae aequinoctiales* 2: 46, t. 89, 1809.
- KING, G. The Indo-Malayan species of *Quercus* and *Castanopsis*. *Ann. R. bot. Gdn., Calcutta* 2: 47-49, 1889.
- MERRILL, E. D. Plants collected on the Vernaycutting Expedition. *Brittonia* 4(1): 39, 1941.
- REHDER, A. New species, varieties and combinations from the Herbarium and the collection of the Arnold Arboretum. *J. Arnold Arbor.* 1(1): 131, 1919.
- SMITH, J. E. in A. Rees, *The Cyclopaedia* 29, 1819.