NOMENCLATURAL NOTES ON THE GENERA DALZELLIA, LAWIA, MNIANTHUS, AND TERNIOLA (PODOSTEMACEAE)

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In 1846 Gardner described *Tristicha zeylanica* based on material collected in Ceylon. Tulasne, however, in 1849, in his precursor to a monograph of the *Podostemaceae*, transferred this species to his new genus *Lawia*, adding, moreover, *L. pulchella* and *L. longipes*.

In 1852, Tulasne, apparently having discovered that his Lawia was antedated by Lawia Wight of 1847, transferred the three species to Terniola. Wight's Lawia later turned out to be a later synonym of the rubiaceous Adenosachme.

In the same year, January 1852, Wight placed the species of Lawia known to him — in this case L. zeylanica (Gardner) Tul. only — in his new genus Dalzellia, adding D. foliosa Wight, D. lawii Wight, D. pedunculosa Wight and D. ramosissima Wight.

Also in the year 1852 Walpers placed Tulasne's three species of Lawia in Mnianthus as M. zeylanicus (Gardner) Walpers, M. pulchellus (Tul.) Walpers and M. longipes (Tul.) Walpers. It is evident from Walpers text that he did not yet know Tulasne's paper of 1852 or that this paper was not yet published at the time of publication of Walpers' book. As far as can be traced Walpers Annales must have been published before April the 8th, 1852, since in the Oesterreichische Botanische Wochenblatt, 2nd year, Nr 14, on page 118, is referred to Walpers' book as being recently published.

In an attempt to establish the priority of any of the three homotypic synonyms over the other I tried to find the date of publication of Tulasne's paper of 1852. The National Library of France nor the Museum of Natural History in Paris were able to give me the exact date of publication however. Therefore, since one of the three dates of publications of 1852 is unknown one is left free to make a choice in regarding one of the names as a valid one, provided earlier authors did not make this choice before.

For that we have to turn to WEDDELL's paper of 1873 and WAR-MING's paper of 1901.

Weddellia Wight and Mnianthus Walpers to one genus for which he chooses the name Terniola. Seven species are included, viz T. foliosa (Wight) Wedd., T. lawii (Wight) Wedd., T. longipes (Tul.) Tul., T. pedunculosa (Wight) Wedd., T. pulchella (Tul.) Tul., T. ramosissima (Wight) Wedd., and T. zeylanica (Gardner) Tul.

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With this choice it is well established that the generic name Terniola Tulasne should be used to include the species of the genera Dalzellia, Lawia, Mnianthus and Terniola.

As regards to the type species of Terniola we can find in Warming's paper of 1901 a reference to this. Here he indicates Lawia zeylanica as the type species of Lawia, but on the other hand he indicates Terniola foliosa as the type species of Terniola. To this can be remarked that the last typification is not a correct one since under the present-day rules of nomenclature a type species can only be indicated from among the species originally described in that genus. In this case Terniola foliosa is inserted in Terniola by Weddell in 1873 based on Dalzellia foliosa Wight and the original Terniola of Tulasne did not include T. foliosa at all.

Actually nomenclatorally it is not important which species Warming indicated as being the type species of Lawia and Terniola, since a later study of Willis showed that both species (Lawia zeylanica and Terniola foliosa) are conspecific and as Lawia zeylanica is based on Tristicha zeylanica of 1846 and Terniola foliosa is based on Dalzellia foliosa of 1852 the specific epithet zeylanica is the one to be used. Therefore we have to regard Terniola zeylanica (Gardner) Tulasne as the type species of the genus Terniola.

Weddell's conception of Terniola is, however, too large and we have to exclude T. ramosissima (Wight) Weddell. This species consists of long, creeping roots from which arise long, slender, often branched shoots with linear, scattered leaves, while all the other species of Terniola (now representing only one, highly variable species) have lichen-like expanded roots from which very short shoots arise with the leaves densely conferted at the tip of the shoots. As no generic name is available to be applied to a genus including this species the new name Indotristicha is used, referring to the form of the plant which resembles a true Tristicha species, but differing from that genus by the three stamens and the cupular-like organ which is formed by connate leaves at the base of the pedicel. Moreover the genus Tristicha is restricted to America and Africa and as this new genus is found in India this explains the use of the first part of the new generic name.

Concluding this paper the synonymy and literature of the two remaining genera are given.

1. **Indotristicha** van Royen, novum genus* — *Dalzellia* Wight, Icon. Pl. Ind. Or. 5, 1852, 34–35, p.p.; Warming, Fam. Pod. 6, 1901, 61; Engler, E.P. Nat. Pfl. Fam., ed. 2, 18a, 1930, 32–33, f. 16 A, 24 — *Terniola* Tulasne, Weddell, DC Prodr. 17, 1873, 46–47, p.p.; Bentham

^{*)} Herba rhizomate repente caulibus filiformibus elongatis ramosissimis. Folia alterna, angustissime linearia, in ramulis floriferis fasciculus subulata basi breviter connata. Flos terminalis. Tepala 3, fere ad usque medium connata. Stamina 3, filamentis filiformibus, antheris 2-loculatis. Ovarium superius, 3-carpellare, 3-loculare, 9-nervatum. Stigmata 3, linearia, libera. Capsula septicide trivalvis. Semina numerosa.

Typus I. ramosissima (Wight) van Royen (basion.: Dalzellia ramosissima Wight).

& Hooker, Gen. Pl. 3, 1880, 108, p.p.; Hooker, Fl. Br. Ind. 5, 1890, 63, p.p. — *Tulasnea* Wight, l.c., t. 1920, 1 — *Lawia* Tulasne, Warming, E.P. Nat. Pfl. Fam, ed. 1, 3, 2a, 1890, 18, p.p.

Type species. I. ramosissima (Wight) van Royen.

Distribution. India.

I. ramosissima (Wight) van Royen, comb. nov. — Dalzellia ramosissima Wight, l.c., 1852, 35; Warming, l.c., 1901, 61; Engler, l.c., 1930, 33, f. 16A, 24, as D. ramosissima (Wight) Warming — Terniola ramosissima (Wight) Weddell, l.c., 1873, 47; Hooker, l.c., 1890, 63 — Tulasnea ramosissima Wight, l.c., 1852, t. 1920, 1 — Lawia ramosissima (Wight) Warming, l.c., 1890, 18 — Tristicha ramosissima (Wight) Willis, Ann. Roy. Bot. Gard. Peradeniya 1, 3, 1902, 208–209 and 1, 4, 1902, 293–306, plates 5–9, 38.

Type specimen. Johnson s.n. in K.

Distribution. India.

2. **Terniola** Tulasne, Archives Mus. hist. nat. Paris 6, 1852, 189-194, t. 13; Weddell, DC Prodr. 17, 1873, 46-47, p.p.; Bentham & Hooker, Gen. Pl. 3, 1880, 108, p.p.; Hooker, Fl. Br. Ind. 5, 1890, 62-63 — Lawia Tulasne (non Wight = Adenosachme, Rubiaceae), Ann. Sc. nat., sér. 3, 11, 1849, 112; Warming, Fam. Pod. 4, 1891, 159-166, 177-178, f. 27-30; Trimen, Fl. Ceylon 3, 1895, 416; Warming, Fam. Pod. 6, 1901, 61; Willis, Ann. Roy. Bot. Gard. Peradeniya 1, 3, 1902, 209-216 and 1, 4, 1902, 307-325, plates 9-13; Engler, E.P. Nat. Pfl. Fam., ed. 2, 18a, 1930, 24, f. 26 — Mnianthus Walpers, Ann. Bot. Syst. 3, 1852, 443 — Tristicha Gardner, Calc. Journ. of Nat. Hist. 7, 1846, 177 — Dalzellia Wight, Ic. Pl. Ind. Or. 5, 1852, 34-35, p.p. — Tulasnea Wight, Ic. Pl. Ind. Or. 5, 1852, t. 1919, fgs 1, 3, 4.

Type species. T. zeylanica (Gardner) Tul. Distribution. One species in Ceylon and India.

T. zeylanica (Gardner) Tulasne, l.c., 1852, 190-192, t. 13, f. 3; Weddell, l.c., 1873, 46; Hooker, l.c., 1890, 62; Trimen, Syst. Cat. Ceylon Pl., 1885, 73 — Tristicha (c) zeylanica Gardner, l.c., 1846, 177 — Lawia zeylanica (Gardner) Tulasne, l.c., 1849, 112; Warming, E.P. Nat. Pfl. Fam., ed. 1, 3, 2a, 1890, 18, p.p.; Warming, l.c., 1891, 177-178, f. 27-30; Trimen, Fl. Ceyl. 3, 1895, 416; Warming, l.c., 1901, 61; Willis, l.c., 1902, 213-216, 307-325, pl. 9-13; Engler, l.c., 1930, 34, f. 21 — Dalzellia zeylanica (Gardner) Wight, l.c., 1852, 36; Thwaites, Enum. Pl. Ceyl., 1860, 223 — Tulasnea zeylanica (Gardner) Wight, l.c., 1852, t. 1919, 1 — Mnianthus zeylanicus (Gardner) Walpers, l.c., 1852, 443 — Terniola foliosa (Wight) Weddell, l.c., 1873, 47; Goebel, Pfl. biol. Schild. 1, 1889, 166-170; Warming, l.c., 1901, 61; Engler, l.c., 1930, 34 — Dalzellia foliosa Wight, l.c., 1852, 35 — Tulasnea foliosa Wight, l.c., 1852, t. 1919, 2 — Lawia foliosa (Wight) Warming, l.c., 1891, 159-161, 176-177, f. 26 — Terniola lawii (Wight) Weddell, l.c., 1873, 47; Hooker, l.c., 1890, 63 — Dalzellia lawii Wight, l.c., 1852, 35 — Tulasnea lawii Wight, l.c., 1852, t. 1919, 47 — Terniola

longipes (Tul.) Tul., l.c., 1852, 193–194, t. 13, f. 2; Weddell, l.c., 1873; Hooker, l.c., 1890, 63 — Lawia longipes Tul., 1849, 112 — Mnianthus longipes (Tul.) Walpers, l.c., 1852, 443 — Terniola pedunculosa (Wight) Weddell, l.c., 1870, 47; Hooker, l.c., 1890, 63 — Dalzellia pedunculosa Wight, l.c., 1852, 35 — Tulasnea pedunculosa Wight, l.c., 1852, t. 1919, f. 4 — Terniola pulchella (Tul.) Tul., l.c., 1852, 192–193, t. 13, f. 4; Weddell, l.c., 1873, 46–47; Hooker, l.c., 1890, 62 — Lawia pulchella Tul., l.c., 1849, 112 — Mnianthus pulchellus (Tul.) Walpers, l.c., 1852, 443.

Type specimen. Gardner s.n. in K. Distribution. India and Ceylon.

Remarks. Willis in 1902 described a number of different forms of this species of which it is doubtful whether they are not only forms of an extremely variable species without deserving the status of a taxonomic form. The nomenclature of these forms, however, will not involve any change of the names given above, and therefore their names are not included here. Future research must reveal their true status.

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