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## *Rothea* (Lamiaceae) Revived

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**ABSTRACT.** *Clerodendrum* L. s.l. subg. *Cyclonema* (Hochstetter) Guerke plus *Clerodendrum* sect. *Konocalyx* Verdcourt (subg. *Clerodendrum* pro parte) are recognized as a distinct genus, for which the earliest name is *Rothea* Rafinesque. The new combinations *Rothea commiphoroides* (Verdcourt) Steane & Mabberley, *Rothea makanjana* (H. Winkler) Steane & Mabberley, *Rothea myricoides* (Hochstetter) Steane & Mabberley, *Rothea incisa* (Klotzsch) Steane & Mabberley, *Rothea sansibarensis* (Guerke) Steane & Mabberley, *Rothea sansibarensis* subsp. *occidentalis* (Verdcourt) Steane & Mabberley, *Rothea sansibarensis* subsp. *caesia* (Guerke) Steane & Mabberley, and *Rothea serrata* (L.) Steane & Mabberley are made.

Steane et al. (1997) have shown that *Clerodendrum* L. s.l. (Lamiaceae s.l.), as recently understood, is polyphyletic and that a group centered on the African *C. myricoides* complex (subg. *Cyclonema* (Hochstetter) Thomas) should be excluded and recognized as a distinct genus, for which the earliest valid, and available, name is *Rothea* Rafinesque. The genus also includes section *Konocalyx* Verdcourt (subg. *Clerodendrum* pro parte).

Chloroplast DNA (restriction site analysis; Steane et al., 1997) and nuclear ribosomal DNA internal transcribed spacers (ITS1 and ITS2 sequence analysis; Steane et al. in press) of *Rothea* are distinct from those of *Clerodendrum* s. str. Morphologically the two genera may be distinguished as follows (we are greatly indebted to Philip D. Cantino, Ohio University, for amplifying this key):

1a. Flower bud markedly asymmetrical, corolla expanding abruptly on lower side only; anterior corolla lobe frequently much larger than the other four; anthers usually basifixed (occasionally ap-

proaching versatile); stigma lobes frequently unequal . . . . . *Rothea*  
1b. Flower bud symmetrical or, if asymmetrical, usually expanding abruptly on upper side due to resupination; anterior corolla lobe only slightly (if at all) larger than the others; anthers versatile; stigma lobes equal . . . . . *Clerodendrum*

Of the two species of *Rothea* recognized by Rafinesque, *R. ternifolia* Rafinesque is here chosen as lectotype. Included under this binomial is the plant Rheede called Tsjerou-Theka (i.e., the Malayalam name, cheriya (= small) thekku (= teak) (Nicolson et al., 1988: 260)), Rafinesque's latinization of which is the basis for the generic name.

### ROTHEA RAFINESQUE

**Rothea** Rafinesque, Fl. Tellur. 4: 69. 1838.

TYPE: *Rothea ternifolia* Rafinesque = *Rothea serrata* (L.) Steane & Mabberley (lectotype, selected here).

*Spironema* Hochstetter, Fl. Abyss. Exsicc. Unio Itin. i 1840 n. 330. ?1841, non Rafinesque (1838) nec Lindley (1840). Syn. nov. TYPE: *Spironema myricoides* Hochstetter = *Rothea myricoides* (Hochstetter) Steane & Mabberley.

*Cyclonema* Hochstetter, Flora 25: 225. 1842, nomen novum pro *Spironema* Hochstetter; *Clerodendrum* L. ["*Clerodendron*"] sect. *Cyclonema* (Hochstetter) Guerke, in Engl., Pflanzenw. Ost-Afrikas C: 341. 1895; *Clerodendrum* subg. *Cyclonema* (Hochstetter) Thomas, in Engl., Bot. Jahrb. Syst. 68: 22. 1936. TYPE: *Cyclonema myricoides* (Hochstetter) Hochstetter = *Rothea myricoides* (Hochstetter) Steane & Mabberley.

*Clerodendrum* L. sect. *Konocalyx* Verdcourt, in Polhill, Fl. Trop. East Africa, Verbenaceae: 86. 1992. Syn. nov. TYPE: *Clerodendrum incisum* Klotzsch = *Rothea incisa* (Klotzsch) Steane & Mabberley.

Shrubs, subshrubs or herbs, sometimes geoxylic, more rarely scandent or decumbent, or even small trees. Leaves opposite or verticillate, sessile or shortly petiolate, often distinctly crenate or coarsely serrate, but sometimes entire, distinctly acrid when crushed. Inflorescences terminal thyrses or axillary cymes, usually lax, occasionally reduced to solitary, axillary flowers. Flowers non-resupinate. Calyx campanulate to subspherical, frequently red or purple, not accrescent, (4)5(6)-lobed up to half its length, the lobes acute to rounded. Corolla predominantly blue to whitish, asymmetrical in bud (expanding abruptly on anterior side), sub-actinomorphic to unilabiate (all lobes on lower lip due to cleft between posterior lobes), tube curved or straight, often anteriorly saccate, lobes 5, anterior often much larger and colored differently from the other four. Stamens parallel, long-exserted, usually arched (straight in *R. incisa*), anthers usually basifixed, thecae parallel, not confluent. Ovary glabrous, glandular or hairy: placentas not furcate; stigma lobes frequently unequal. Fruit a 4-lobed drupe or drupaceous schizocarp, each lobe containing a 1-seeded pyrene.

*Distribution.* Widespread throughout sub-Saharan Africa, Madagascar, Indian Ocean islands, and tropical Asia, east to the Moluccas.

Although a full revision of *Rothea* is not ready for publication, names are needed for a new edition of *The Plant-book* (Mabberley, 1997) and other publications and so the following new combinations are proposed here:

**1. *Rothea commiphoroides*** (Verdcourt) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum commiphoroides* Verdcourt, in Polhill, Fl. Trop. E. Africa, Verbenaceae: 139. 1992. TYPE: Tanzania. Iringa Dist., 55 km on Mafinga–Madibira Road, *Bidgood et al.* 1297 (holotype, K; isotypes, not seen).

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**2. *Rothea incisa*** (Klotzsch) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum incisum* Klotzsch, in Peters, Reise Mossamb., Bot. 1: 257. 1861. TYPE: Mozambique. Rios de Sena, Querimba & Boror, *Peters s.n.* (syntypes, B destroyed).

Tropical east Africa; widely cultivated in the tropics and under glass elsewhere.

**3. *Rothea makanjana*** (H. Winkler) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum makanjanum* H. Winkler, Feddes Rept. 18: 124. 1922. TYPE: Tanzania. S. Pare Mts., Makanja–Same, 1 Sep. 1910, *Winkler* 3797 (holotype, BRSL lost). See Verdcourt (1992: 141) for discussion of the type.

Kenya, Tanzania

**4. *Rothea myricoides*** (Hochstetter) Steane & Mabberley, comb. nov. Basionym: *Spirocnema myricoides* Hochstetter, Fl. Abyss. exsicc. Unio Itin., i 1840 n. 330. ?1841. *Cyclonema myricoides* (Hochstetter) Hochstetter, Flora 25: 226. 1842. *Clerodendrum myricoides* (Hochstetter) R. Brown [in Salt, Voy. Abyss., App.: lxx. 1814, nom. nud.] ex Vatke, Linnaea 43: 535. 1882. *Siphonanthus myricoides* (Hochstetter) Hiern, Cat. Afr. Pl. Welw. 1: 844. 1900. TYPE: Ethiopia. Mt. Scholoda, *Schimper* 330 (holotype, TUB; isotypes, BM, K, OXF).

Central and east to northeast tropical Africa. *Rothea myricoides* comprises a perplexing complex of morphological variants (see Verdcourt (1992) and Persson (1992) for discussion), of which ‘Ugandensis’ is widely cultivated (known as Oxford & Cambridge bush due to its dark blue and light blue corolla lobes); see Staples (1991).

**5. *Rothea sansibarensis*** (Guerke) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum sansibarense* Guerke, in Engl., Bot. Jahrb. Syst. 18: 181 (22 Dec. 1893). TYPE: Tanzania. Zanzibar, Tumbatu Is., Kokotoni, Aug. 1889, *Stuhlmann* 511 (holotype, B destroyed; isotype, HBG (K, photo)).

Verdcourt (1992) recognized three subspecies: subsp. *sansibarensis*, *occidentalis*, and *caesia*.

(i) ***Rothea sansibarensis* subsp. *sansibarensis***

Kenya, Tanzania, Zambia, Zaire

(ii) ***Rothea sansibarensis* subsp. *occidentalis*** (Verdcourt) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum sansibarense* subsp. *occidentale* Verdcourt, in Polhill, Fl. Trop. E. Africa, Verbenaceae: 127. 1992. TYPE: Tanzania. Handeni Dist., Kabuku Forest, *Faulkner* 4163 (holotype, K).

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(iii) ***Rothea sansibarensis*** subsp. ***caesia*** (Guerke) Steane & Mabberley, comb. nov. Basionym: *Clerodendrum caesium* Guerke, in Engl., Bot. Jahrb. 28: 300. 1900. *Clerodendrum sansibarensis* subsp. *caesium* (Guerke) Verdcourt, in Polhill, Fl. Trop. E. Africa, Verbenaceae: 128. 1992. TYPE: Tanzania. Iringa Dist., Utschungwe Mts., Muhanga, 10 Feb. 1899, Goetze 633 (holotype, B destroyed).

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6. ***Rothea serrata*** (L.) Steane & Mabberley, comb. nov. Basionym: *Volkameria serrata* L., Mant. 90. 1767. *Clerodendrum serratum* (L.) Moon, Cat. Pls. Ceylon: 46. 1824. *Rothea ternifolia* Rafinesque, Fl. Tellur. 4: 69, nom. illeg. superfl. (*V. serrata* in syn.). *Cyclonema serratum* (L.) Hassk., Pl. Jav. Rar.: 489. 1848. TYPE: India. Anon. in Herb. Linn. 809/5 (lectotype, designated by Moldenke & Moldenke (1983: 417), LINN).

*Clerodendrum macrophyllum* Sims, in Curtis, Bot. Mag. 52: t. 2536. 1824. *Rothea bicolor* Rafinesque, Fl. Tellur. 4: 69. 1838, hom. illeg., superfl. (*Clerodendrum macrophyllum* in syn.). TYPE: Bot. Mag. t. 2536. 1824, drawn from material cultivated by R. Barclay at Bury Hill, Surrey, England, grown from seed sent from Mauritius (probably sent by C. Telfair).

Indomalesia.

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