

## ACKNOWLEDGEMENTS

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## VITACEAE

A NEW AND AN OVERLOOKED RECORD OF *CYPHOSTEMMA* IN ANGOLA

The family Vitaceae was recently catalogued for *Plants of Angola* (Figueiredo & Smith 2008) by Retief (2008), who recognised 20 species in the genus. During ongoing work on the flora of Angola, two additional species of *Cyphostemma* (Planch.) Alston were recently newly recorded for the country. These are *Cyphostemma wittei* (Staner) Wild & R.B.Drumm. and *C. congestum* (Baker) Desc. ex Wild & R.B.Drumm. *C. congestum* had already been recorded for Angola in an obscure publication that was overlooked by previous reviewers of the family in Angola.

***Cyphostemma congestum* (Baker) Desc. ex Wild & R.B.Drumm.** in *Flora zambesiaca* 2,2: 473 (1966). *Vitis congesta* Baker in Oliv.: 412 (1868). *Cissus congesta* (Baker) Planch. in A.DC. & C.DC.: 590 (1887). *Cyphostemma congestum* (Baker) Desc.: 120 (1960), comb. inval. [ICBN Art. 33.4, no clear indication of basionym]. Type: Angola, Chibiza, *Meller s.n.* (K, holo.).

*Cissus fleckii* Schinz: 640 (1908a). *Cyphostemma fleckii* (Schinz) Desc.: 121 (1960), comb. inval. [ICBN Art. 33.4, no clear indication of basionym]. *Cyphostemma fleckii* (Schinz) Desc.: 221 (1967). Type: South West Africa [Namibia], Hereroland, *Fleck 762* (Z, holo.).

*Cissus amboensis* Schinz: 699 (1908b). Type: South West Africa [Namibia], Hereroland, *Dinter 186* (syn.), *Amboland*, *Wulfhorst 176* (syn.).

*Cyphostemma congestum* has been recorded from Namibia, Botswana, South Africa, Mozambique, Zambia and Zimbabwe (African Plants Database 2010). This species shows variation in the density of stem glands: in Namibia in the west, the stems can be moderately to sparsely glandular, while they are more so towards the eastern parts of its distribution range. The PRE specimens from the Angolan side of the Ruacanã Falls, cited below, have stems that are puberulous with multicellular hairs, without capitate glandular hairs.

Merxmüller & Schreiber (1969) synonymized *Cissus amboensis* with *Cyphostemma congestum* and men-

tioned the occurrence of the taxon in Angola. This was overlooked by Retief (2008). The specimens listed here confirm the occurrence of *C. congestum* in Angola.

*Specimens examined*

ANGOLA.—Cunene, Ruacanã Falls, 30 April 1962, *Kotze 57* (PRE!); Cunene, top of Ruacanã Falls on Angolan side, 30 April 1962, *Rycroft 2423* (PRE!). Figure 4.

***Cyphostemma wittei* (Staner) Wild & R.B.Drumm.** in *Kirkia* 2: 141 (1961). *Cissus wittei* Staner in *Wildeman & Staner*: 49 (1932). Type: from Congo (Katanga).

*Cyphostemma wittei* was previously only known from the Democratic Republic of Congo, Tanzania and Zambia. It is a variable species with the stems sometimes glandular, whereas in other cases they are eglandular.

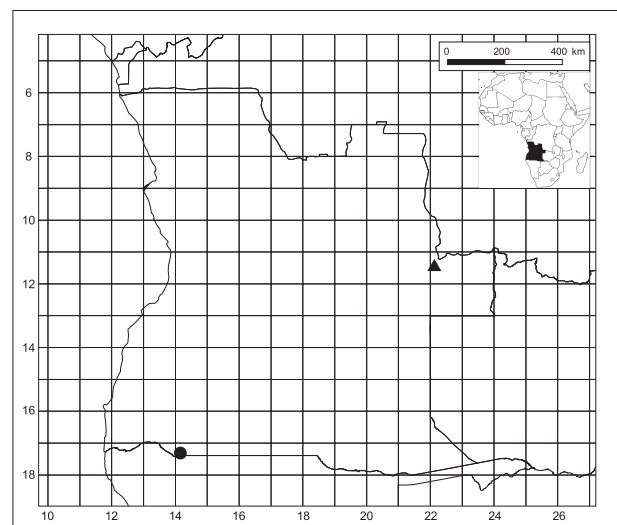


FIGURE 4.—Distribution of *Cyphostemma congestum*, ●; and *C. wittei*, ▲, in Angola.

This variation has even been encountered on the same plant (*Milne-Redhead* 2839, K, cited by Wild & Drummond 1966). The stems on the LISC specimen from Angola cited below are eglandular.

#### Specimen examined

ANGOLA.—Moxico, Cameia, *Barros Machado* ANG.XII.54–51 (LISC!). Figure 4.

The two new records bring the total number of *Cyphostemma* species known for the country, to 22. Nine of these known Angolan species of *Cyphostemma* are endemic.

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#### APOCYNACEAE (ASCLEPIADOIDEAE–CEROPEGIAEAE)

##### FIRST RECORDS OF *ORBEA COOPERI* IN GAUTENG AND MPUMALANGA PROVINCES, FSA REGION

The last full revision of the genus *Orbea* (N.E.Br.) L.C.Leach by Bruyns (2002), consisted of 56 species distributed throughout Africa and southwestern Arabia with ± 31 species south of the equator and ± 24 in South Africa (Bruyns 2002, 2005). As a result of some taxonomic changes, more species were moved to the genus (Plowes 2004, 2007; Bruyns 2005; Raffaelli *et al.* 2008; Meve 2009) bringing the total in *Orbea* to the current 61 species (*sensu* Bruyns).

The current known distribution records show that *Orbea cooperi* (N.E.Br.) L.C.Leach occurs in the drier western and central interior of South Africa. Charles Craib and Gillian Condy, Warren McClelland, Tony de Castro and eventually the second author reported the existence of an *Orbea* (presumably *O. cooperi*) from Mpumalanga during 2008–2009. New distribution records were also collected from the Devon area (Leeukop, Gauteng) and near Greylingstad (Platkop, Mpumalanga). The new records constitute a northeastern extension of the distribution range of *O. cooperi* (Figure 5).

The habitat at the new sites is stony ground characterized by dolerite outcrops and sheets, surrounded by grassland with predominantly black turf soil. *O. cooperi* grows amongst the rocks in these dolerite outcrops. This habitat becomes waterlogged and muddy in spring and summer after rain. As the season progresses, the soil dries out and becomes hard and cracked in winter. Associated species found at these localities include succulents such as *Crassula setulosa* and *Euphorbia clavarioides*, the karroid dwarf shrub, *Eriocephalus karoocicus* and herbs, including *Lessertia* cf. *depressa* and *Jamesbrittenia stricta*, intermixed with other herbs and grasses.

At first, the new records were thought to represent a new species or subspecies based on the flowers that were produced by various cuttings grown in the nursery of the Pretoria National Botanical Garden (PNBG). The flowers of these plants were devoid of vibratile hairs (marginal cilia) and were much smaller than the reported size for *Orbea cooperi* (Figure 6). The exact same plants grown in the PNBG's nursery did, however, in the third