

## APOCYNACEAE

### DISTRIBUTION OF *CRYPTOLEPIS DELAGOENSIS* (PERIPLOCOIDEAE–CRYPTOLEPIDAE), A SUBCONTINENTAL SOUTHERN AFRICAN ENDEMIC AND SELECTION OF A NEOTYPE

During a visit to Mahamba Gorge in Swaziland in November 2009, John Burrows showed the first author a branch of a *Cryptolepis* that grew on the Mahamba mountainside. These plants were also growing along the river bank next to the campsite and one of them was in full flower. Initial investigations at the National Herbarium (PRE) revealed that it was *C. delagoensis* and a new record for Swaziland. After consultation of the collection, further material, previously incorrectly identified as *Secamone filiformis* (L.f.) J.H.Ross, extended our knowledge of *C. delagoensis*, and led to this note.

*Cryptolepis delagoensis* seems to be so infrequently collected that it has not even been reported in the preliminary checklist of vascular plants for Mozambique (Da Silva *et al.* 2004). It was annotated as an insufficiently known species in Klopper *et al.* (2006). In the

most recent assessment of all South African species, Raimondo *et al.* (2009) listed the conservation status of *Cryptolepis delagoensis* as least concerned (LC).

*Cryptolepis delagoensis* Schltr. has not previously been reported for Swaziland (Compton 1966, 1976; Kemp 1981, 1983; Braun *et al.* 2004; Braun 2010). In the protologue, the species was described and based on a single unnumbered specimen of Schlechter (Schlechter 1905; Brown 1907). It was collected at Delagoa Bay near Lourenço Marques (today Maputo). All Schlechter's holotypes were deposited in the Berlin Herbarium (B) which was bombed during the Second World War, and most of these specimens were destroyed (Hiepko 1978; Nicholas 1992; Livshultz 2003). Although some specimens from B were out on loan at the time of the bombing, recent enquiries to the curator revealed that

the *Cryptolepis delagoensis* specimen was not one of them. It is therefore presumed that Schlechter's specimen was also destroyed. The following neotype is therefore selected here.

***Cryptolepis delagoensis* Schltr.** in Botanische Jahrbücher 38: 26 (1905). Neotype: South Africa, Natal [KwaZulu-Natal], Tembe Game Reserve, Ngobozana Trail, H.J.T. Venter 9335 (PRE, neotype here designated; BLFU, isoneotype).

The Kemp specimen (1181) of *Cryptolepis delagoensis* is the first record of this species in Swaziland, even though it was wrongly identified and listed under *Secamone filiformis* Schltr. (Braun *et al.* 2004).

The two species, *Cryptolepis delagoensis* and *Secamone filiformis*, have many common features: both are lianas with a climbing nature; both have leaves that are somewhat bicolorous with the lower surfaces much paler compared to the dark green adaxial side; and the lower epidermis is densely covered by papillae, those in *S. filiformis* being much smaller than those found in *C. delagoensis*.

The difference in flowers is very obvious. In *Cryptolepis delagoensis* the inflorescences are few-flowered with 2–6 flowers and pedicels 1–3 mm long, contrasting with the inflorescences of *S. filiformis* which have 5–12 flowers with pedicels 2–4 mm long. Furthermore, the leaves of *C. delagoensis* are elliptic to lanceolate-elliptic with the blade 10–22 × 4–7 mm and in *S. filiformis* the leaves are linear with the blade 12–44 × 1–4 mm.

*Cryptolepis delagoensis* grows in closed, short bushland, open woodland scrub usually on a rocky substrate, or in thickets of short sand forest. The plants grow in well-drained loamy soils and partial shade on steep, undisturbed slopes, river banks or plains. The creamy yellow flowers are borne from November to February followed by the development of follicles that are dark brown when mature. Specimens have been collected at altitudes from 30–1 000 m. In sand forests it can attain heights of ± 4 m tall. The known distribution for *C. delagoensis* is given in Figure 18.

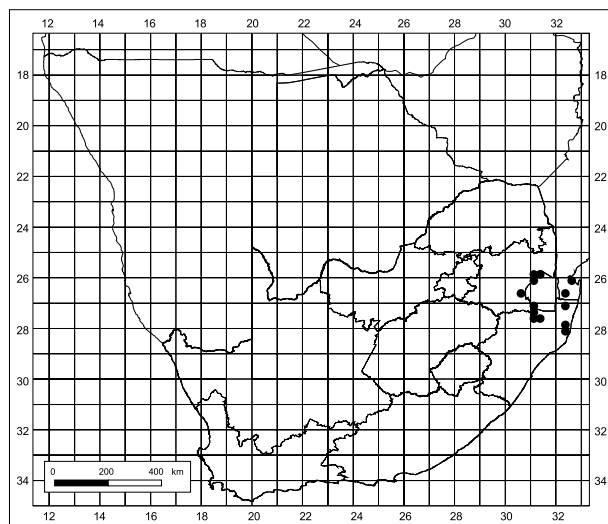


FIGURE 18.—Known distribution of *Cryptolepis delagoensis* Schltr.

### Specimens examined

SWAZILAND.—2631 (Mbabane): Mololotsha Valley, 26° 06'S 31° 06' E, (–AA), Kemp 1181 (PRE!, SDNH). 2731 (Louwsburg): Mahamba Gorge, ± 4.4 km NNW of Mahamba Border Post, Mahamba Lodge, (–AA), Bester 9763 (BLFU!, LYD!, MO!, PRE!, PRU!, UDW!).

MOZAMBIQUE.—2632 (Bela Vista): Maputo, southern end of Licuati Forest Reserve, ± 30 km SW of Bela Vista, Goyder 5034 (K).

MPUMALANGA.—2531 (Komatipoort): Barberton, (–CC), Thorncroft 825 (NU, NH); Ida Doyer Reserve on Farm Schoonoord 380JU, near Swaziland border at Havelock, (–CC), Fourie 1641 (PRE!); Ugu-tugulo Gorge below Shiyalongubo Dam (Makonjwa Range), waterfall plunge-pool rim, 25°46'12"S 31°16'18"E, (–CD), Winter 6439 (PRE!). 2630 (Carolina): Amsterdam, 9 km S of town, (–DA), Bruyns 9365 (BOL).

KWAZULU-NATAL.—2731 (Louwsburg): Piensrand area, crest of Nqongwana Hill, (–AC), MacDevette 718 (NH); Vryheid Dist., road to Bhivarte (Paris) Dam, (–CA), Bruyns 9357 (BOL); Coronation, Paris Dam, 27°31'0"S 31°2'0"E, (–CA), Hankey 556 (PRE!); Vryheid Dist., Coronation, Schurwerand Farm 9640, ± 26 km north from Coronation in gorge above Bivane River, (–CA), Jacobsen 5371 (PRE!); Itala Game Reserve, slope above Square Davel, (–CB), MacDevette 2220 (NH, PRE–photocopy). 2732 (Ubombo): Ingwavuma Dist., Tembe Elephant Park, (–AB), Ward 1928 (NH, PRE!); Tembe Game Reserve, Ngobozana trail, (–AB), Venter 9335 (BLFU, PRE); False Bay, Bird Sanctuary, near Mr Redman's house, (–CD), Gerstner 4731 (PRE). 2832 (Mtubatuba): Hlabisa Dist., False Bay, bird sanctuary, Bushveld Reserve, (–AB), Gerstner 4731 (PRE!).

### REFERENCES

- BRAUN, K.P. 2010. *Swaziland flora database*. <http://www.sntc.org.sz/flora/index.asp> (accessed 1 March 2010).
- BRAUN, K.P., DLAMINI, S.D., MDLADLA, D.R., METHULE, N.P., DLAMINI, P.W. & DLAMINI, M.S. (compilers) 2004. *Swaziland flora checklist*. South African Botanical Diversity Network Report No. 27. SABONET, Pretoria.
- BROWN, N.E. 1907. In W.T. Thiselton-Dyer, *Flora capensis* 4,1: 528. Reeve, London.
- COMPTON, R.H. 1966. An annotated checklist of the flora of Swaziland. *Journal of South African Botany*, Suppl. vol. 6: 62–64.
- COMPTON, R.H. 1976. The flora of Swaziland. *Journal of South African Botany*, Suppl. vol. 11: 442–472.
- DA SILVA, M.C., IZIDINE, S. & AMUDE, A.B. 2004. *A preliminary checklist of the vascular plants of Mozambique*. South African Botanical Diversity Network Report No. 30. SABONET, Pretoria.
- HIEPKO, P. 1978. Die erhaltenen Teile der Sammlungen des Botanischen Museums Berlin-Bahlem (B) aus der Zeit vor 1943. *Willdenowia* 8: 389–400.
- KEMP, E.S. 1981. *Additions and name changes to the flora of Swaziland*. Swaziland National Trust Commission, Occasional Publication No. 1.
- KEMP, E.S. 1983. *A flora checklist for Swaziland*. Swaziland National Trust Commission, Occasional Publication No. 2.
- KLOPPER, R.R., CHATELAIN, C., BÄNNINGER, V., HABASHI, C., STEYN, H.M., DE WET, B.C., ARNOLD, T.H., GAUTIER, L., SMITH, G.F. & SPICHTER, R. 2006. *Checklist of the flowering plants of sub-Saharan Africa: an index of accepted names and synonyms*. South African Botanical Diversity Network Report No. 42. SABONET, Pretoria.
- LIVSCHULTZ, T. 2003. Leptotypification of *Dolichostegia* Schlechter (Asclepiadoideae, Apocynaceae) and a new combination, *Dischidia boholensis*. *Taxon* 52: 595–600.
- NICHOLAS, A. 1992. The Asclepiadaceous works of Rudolph F. Schlechter (1872–1925). *Willdenowia* 22: 215–264.
- RAIMONDO, D., VON STADEN, L., FODEN, W., VICTOR, J.E., HELME, N.A., TURNER, R.C., KAMUNDI, D.A. & MANYAMA, P.A. (eds). 2009. Red List of South African plants 2009. *Strelitzia* 25. South African National Biodiversity Institute, Pretoria.

SCHLECHTER, R. 1905. *Asclepiadaceae* africanæ. In A. Engler, Beiträge zur Flora von Afrika XXVIII. *Botanische Jahrbücher* 38: 25–56.

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