

## Technical Communication

### A new combination in the genus *Ruschia* and the correct name for '*Cynanchum capense*'

P.V. Bruyns

Bolus Herbarium, University of Cape Town, 7700 Republic of South Africa

Received 19 December 1996; revised 25 March 1997

Several times during 1996 I have encountered a highly succulent species of *Ruschia* on arid, north-facing slopes between Bonnievale and Swellendam. The plant is dwarf (not usually more than 150 mm tall), clump-forming, sometimes with a few horizontal 'runners'. It has green, highly succulent leaves 25–35 × 4–8 mm, triangular in cross-section, often with a few teeth on the keels and margins towards the apex. The flowers are solitary, puce and borne on lax pedicels 20–40 mm long which become nutant after fertilization. The capsule is 4–6-locular, rather shallow, hard and brown, without valve-wings but with placental tubercle and broad covering membranes in each locule.

Searches in the Bolus Herbarium revealed two dwarf, clump-forming species with thick leaves from the area: *R. intrusa* (Kensit) L. Bol. and another species usually referred to as *R. forficata* and listed under this name in Jacobsen (1960). These searches soon revealed that some confusion surrounds the name *R. forficata* (L.) L. Bol. whose basionym is *Mesembryanthemum forficatum* L.

Linnaeus' *M. forficatum* was transferred to *Erepsia* by Schwantes. Liede (1990) showed more or less conclusively that this is the correct name for what is commonly known as *Erepsia mutabilis* (Haw.) Schwant. This is a characteristic, highly succulent shrublet found on higher parts of the Table Mountain Chain of the Cape Peninsula and has nothing to do with the *Ruschia* in question. However, Liede (1990) did not seem to be aware of the combination *R. forficata* (L.) L. Bol. which should also be a synonym of *Erepsia forficata* (L.) Schwant.

In 1920 L. Bolus described *M. purpureostylum*, based on a collection from Bonnievale. This specimen matches exactly the material that I was seeking to name. She later (l.c. 1929) included this name in the synonymy of *R. forficata* (L.) L. Bol. which, in view of what has been said above, is not correct.

From an examination of the type specimen, it is clear that *M. purpureostylum* L. Bol. is the correct name for the *Ruschia* in question. However, because of the general misapplication of the name *R. forficata* to these plants, this name has never been transferred to *Ruschia*, where it appears to belong because of the lack of valve-wings and the presence of a placental tubercle.

In order to rectify the position the following new combination is proposed:

*Ruschia purpureostyla* (L. Bol.) P. V. Bruyns, *comb. nov.*  
*Mesembryanthemum purpureostylum* L. Bol., *Ann. Bol. Herb.* 3: 6 (1920). Type: South Africa, SW Cape, Bonnievale, *Mathews sub* NBG 3426/15 (BOL, holo!).  
*Ruschia forficata sensu* L. Bol. *Notes Mesem.* 2: 79 (1929) *et* Jacobsen, *Handb. Succ. Pl.* 3: 1381 (1960).

The following additional synonym for *Erepsia forficata* (L.) Schwant. should be noted: *Ruschia forficata* (L.) L. Bol., *Notes Mesem.* 2: 79 (1929).

Recently, while trying to identify a small asclepiad from south-

ern India, the name *Pentatropis capensis* (L.f.) Bullock arose as a candidate. This name has *Cynanchum capense* L.f., published in 1781, as its basionym. Brown (1908) pointed out that there are two specimens of '*Cynanchum*' in the Linnaean Herbarium annotated as '*capense*' in Linnaeus' own hand. One of these is a collection of König from India which Brown considered to be the same as *Pentatropis microphylla* (Roth) Wall. and to which the description for *C. capense* supplied by the younger Linnaeus applies. The other, by Sparrmann, is of *C. obtusifolium* and does not fit this description as closely as does the König specimen.

As a consequence of these facts, Bullock (1955) published the new combination *Pentatropis capensis* with *Cynanchum capense* L.f. as the basionym. There is no doubt that the 1781 publication of the name *Cynanchum capense* is valid and hence all later publications of this name are illegitimate. Furthermore, if this name is lecto-typified by the König specimen (as was done by Ali, 1983), then Bullock was correct in making *Pentatropis microphylla* a synonym of *P. capensis*. This is formalized below.

Because of the earlier valid publication of *C. capense* L.f., N.E. Brown's use of the name *Cynanchum capense* Thunb. (published in 1800) is incorrect. R. Brown also published his own version of *C. capense*. The material on which this was based was examined by N.E. Brown and found to be *C. obtusifolium* (Brown l.c.: 752). Other yet later '*Cynanchum capense*' have been published but these are of no concern here.

The problem of what to call the widespread and plentiful *Cynanchum* from the eastern Cape and further north, which is often referred to as *C. capense*, was addressed by R.A. Dyer (1937). He made the new combination *Cynanchum ellipticum* (Harv.) R.A. Dyer based on Harvey's *Bunburia elliptica* of 1838.

The correctness of this decision does not seem to have been questioned. However, recently Liede (1993) once again revived the name *Cynanchum capense* Thunb. for these plants. No arguments were presented for this change of the status quo. The above facts demonstrate that her treatment is incorrect in this respect and that the correct name for this plant is *Cynanchum ellipticum*. In order to restore clarity to this situation the correct synonymy of *P. capensis* and *C. ellipticum* are given below:

*Pentatropis capensis* (L.f.) Bullock, *Kew Bull.*: 284 (1955). *Vincetoxicum capense* (L.f.) Kunze, *Rev. Gen. Pl.* 2: 424 (1898). *Cynoctonum capense* (L.f.) E. Mey., *Comm. Pl. Afr. Austr.*: 2 (1837). *Cynanchum capense* L.f., *Suppl.*: 168 (1781). Type: India, König *sub Herb. Linn.* 308/8 (LINN). *Pentatropis microphylla* (Roth) Wall., *Cat.* 8213 (1823). *Asclepias microphylla* Roxb., *Hort. Beng.*: 85 (1814) *nom. nud.* *Asclepias microphylla* Roth, *Nov. Pl. Sp. Ind. Or.*: 177 (1821). *Cynanchum acuminatum* Thunb. (Alner), *Obs. in Cynanchum*: 5 (1821).

*Cynanchum ellipticum* (Harv.) R.A. Dyer, *Mem. Bot. Surv. S. Afr.* 17: 138 (1937). *Bunburia elliptica* Harv., *Gen. S. Afr. Pl.*: 416 (1838). *Cynanchum capense* Thunb., *Prodr. Fl. Cap.*: 47 (1800) non L.f. (l.c.); non R. Br., *Mem. Wern. Soc.* 1: 46 (1810); non Sieber *ex* Decne., DC., *Prodr.* 8: 612 (1895).

## References

- Ali, S.I. 1983. Asclepiadaceae in Nasir & Ali, *Fl. Pakistan* 150.  
Brown, N.E. 1905-1909. Asclepiadaceae in Thistleton-Dyer, *Flora Capensis* 4 (1).  
Dyer, R.A. 1937. The vegetation of the divisions of Albany & Bathurst. *Mem. Bot. Surv. S. Afr.* 17.  
Jacobsen, H. 1960. *Handbook of Succulent Plants* 3. Blandford Press, London.  
Liede, S. 1990. Untersuchungen zum Merkmalbestand und zur Taxonomie der 'Erepsinae'. *Beiträge zur Biologie der Pflanzen* 64: 391–479.  
Liede, S. 1993. A taxonomic revision of the genus *Cynanchum* in southern Africa. *Botanische Jahrbücher* 114: 503–550.