

Notes on African plants

VARIOUS AUTHORS

CYPERACEAE

A NEW COMBINATION IN *ISOLEPIS*

Since its description by Nees von Esenbeck in 1836, the generic affinities of the small annual *Cyperus leucoloma* Nees from the Western Cape have remained unquestioned. Nees and subsequent authors compared and contrasted it with the superficially similar *C. tenellus* L.f. on account of its 'distichous' glumes. The type was not specified by Nees, but he stated that he had seen it 'in Herb. Reg. Ber.'. Boeckeler (1867/1868) cited a Bergius specimen in B, and Clarke (1897) and Kükenthal (1936) both cited *Bergius 174* in B. Fortunately it was possible to borrow this sheet (Figure 1).

Typification

The sheet consists of two specimens, one in the capsule (Figure 1A) without locality or collector information, and another (Figures 1B; 2), *Bergius 174*, collected at 'Prom. bon sp.'. Prof. Hiepko, Director of the Herbarium, B, is of the opinion that the two specimens were remounted onto one sheet in the latter half of the 19th century, when a larger size herbarium sheet was brought into use. It is highly likely that the specimen in the capsule is the one seen by Nees, as the note (Figure 1C) which was folded inside the capsule is almost certainly in Nees' handwriting (Burdet 1977: 189, 190). This specimen is therefore taken to be the holotype. The label (Figure 1D) of the specimen (Figure 1B) is written in Schlechtendal's hand, excepting the 'N. ab Es.' (P. Hiepko pers. comm.). K.H. Bergius was an apothecary and naturalist at the Cape from 1815 until his death in 1818, following which his specimens were sent to Berlin by Von Chamisso (Gunn & Codd 1981: 93). Schlechtendal was at that time and up until 1833 'supervisor of the public collection of herbs' (curator) at B (Hiepko 1987: 221).

Further evidence that this is the original sheet are the annotations thought to be by Boeckeler (Figure 1E), and those by Clarke (not shown) and Kükenthal (Figure 1F). Additionally, according to Hiepko (1987: 251), the types of *Cyperus s.l.* escaped the destruction during World War II because they had been moved to the basement of the Museum.

The correct generic placement of the species

There is currently much disagreement on the infrafamilial classification (at all levels) of Cyperaceae. However, it is generally agreed that *Cyperus s.str.* has distichous glumes and flattened spikelets, whereas *Isolepis* R.Br. has spiralled glumes and rounded spikelets. It

can be clearly seen that, while otherwise conforming exactly to Nees' description, the glumes in the holotype of *C. leucoloma* Nees appear to be subdistichous due to having been collected at a young stage and flattened by the collector. Glume scars on spikelet axes of dissected material (*Barker 243*) show clearly that the glumes are spirally arranged. *C. leucoloma* is undoubtedly a species of *Isolepis*: it is probably related to *I. incomptula* Nees which has a similar spikelet and glume morphology. The genus is currently under revision. Meanwhile the new combination is effected below.

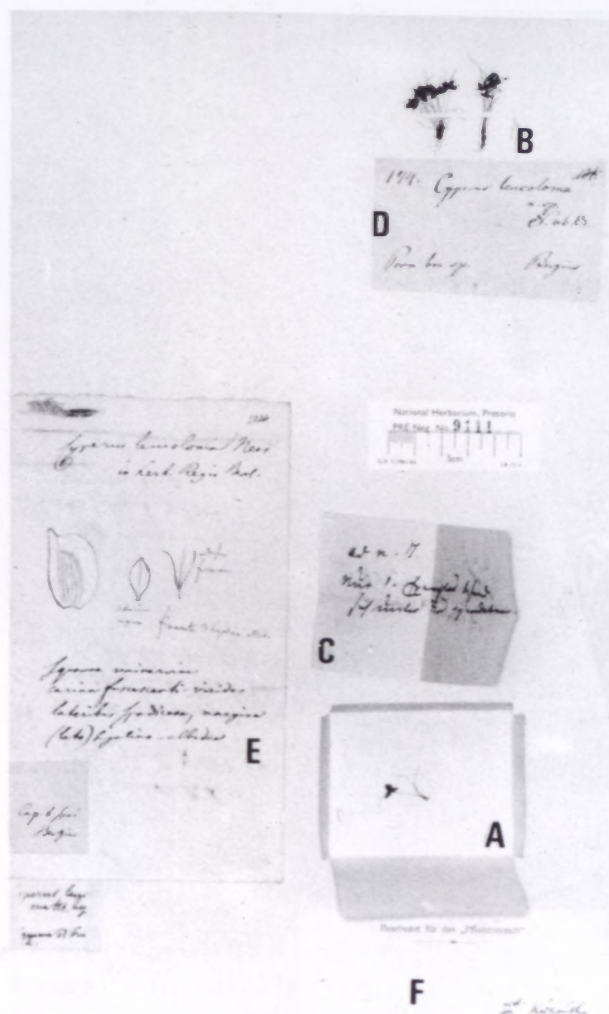


FIGURE 1.—*Isolepis leucoloma* (Nees) C.Archer. A, ?holotype; B, specimen; C, note in ?Nees' handwriting; D, label in Schlechtendal's handwriting; E, sketch annotated by ?Boeckeler; F, annotation by Kükenthal. Lowermost portion of sheet not shown. Photograph: R.H. Archer.



FIGURE 2.—Enlargement of Figure 1B, Bergius 174 to show morphology of species, $\times 2$. Photograph: R.H. Archer.

***Isolepis leucoloma* (Nees) C.Archer, comb. nov.**

Cyperus leucoloma Nees in *Linnaea* 10: 133 (1836); Kunth: 50 (1837); Boeck.: 506 (1867/1868); C.B. Clarke: 566 (1894); C.B. Clarke: 165 (1897); Kük.: 298 (1936); Levyns: 99 (1950); Bond & Goldblatt: 39 (1984). Type: not specified [most probably: Prom. bon. sp., Bergius 174] (B, specimen in capsule!).

Specimens examined

WESTERN CAPE.—3219 (Wuppertal): on road to Heuningvlei, (–AA), Emdon 129 p.p. (NBG); Porterville, on plateau of Voorberg (above Dasklip Pass) on road to Forestry Centre, Zuurvlakte Farm, (–CC), Barker 243 (PRE). 3318 (Cape Town): Malmesbury, (–BC), Schlechter 16336 (K, P). 3319 (Worcester): Paarl Division, French

Hoek Peak, (–CC), *Stokoe s.n. sub SAM 59230* (SAM). 3418 (Simonstown): mountain at Kalk Bay, (–AB), Levyns 831 (K).

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REFERENCES

- BOECKELER, J.O. 1867/1868. Die Cyperaceen des Königlichen Herbariums zu Berlin. *Linnaea* 35: 397–612.
- BOND, P. & GOLDBLATT, P. 1984. Plants of the Cape flora: A descriptive catalogue. *Journal of South African Botany* Suppl. Vol. 13.
- BURDET, H.M. 1977. Autographes de botanistes sous forme de fiches. X. *Candollea* 32: 165–206.
- CLARKE, C.B. 1894. Cyperaceae. In T. Durand & H. Schinz, *Conspectus florae africanae* 5: 526–692.
- CLARKE, C.B. 1897. Cyperaceae. In W.T. Thiselton-Dyer, *Flora capensis* 7: 149–310.
- GUNN, M. & CODD, L.E. 1981. *Botanical exploration of southern Africa*. Balkema, Cape Town.
- HIEPKO, P. 1987. The collections of the Botanical Museum Berlin-Dahlem (B) and their history. [See also: Appendix A, Appendix B.] *Englera* 7: 219–252.
- KÜKENTHAL, G. 1936. Fam. IV, 20. Cyperaceae–Scirpoideae–Cypereae. In A. Engler, *Das Pflanzenreich* 101.
- KUNTH, C.S. 1837. *Enumeratio plantarum* 2. Stuttgart.
- LEVYNS, M.R. 1950. Cyperaceae. In R.S. Adamson & T.M. Salter, *Flora of the Cape Peninsula*: 97–132.
- NEES VON ESENBECK, C.G. 1836. Cyperaceae capenses secundum novissimas Ecklonii collectiones. *Linnaea* 10: 127–207.

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