

# CYPERACEAE

## NEW RECORDS FOR SOUTHERN AFRICA AND KWAZULU-NATAL

### INTRODUCTION

Three species of Cyperaceae, previously not known from the *Flora of southern Africa (FSA)* region (Retief 1993) are here recorded from that region and two species of the same family, previously not known from KwaZulu-Natal (Retief 1993), are newly recorded from that province.

### Species new to the *Flora of southern Africa* region

1. *Eleocharis mutata* (L.) Roem. & Schult., *Systema vegetabilium* (Caroli a Linné) 2: 155 (1817).

This species has been recorded from West tropical Africa (Hooper 1972), East Africa (Haines & Lye 1983) and South America (Svenson 1929). It is the type species of *Eleocharis* subgen. *Limnochloa* (P. Beauv. ex Lestib.) C.B. Clarke sect. *Limnochloa* (P. Beauv. ex Lestib.) Benth.

It was recently collected by C.J. Ward and others at Lake Nhlabane, south of St Lucia Estuary (28°35'S; 32°15'E). Plants were growing within an extensive stand of *Eleocharis dulcis* (Burm.f.) Henschel. *E. acutangula* (Roxb.) Schult. was also present, but in shallower water towards the lake margin.

*Specimens examined* (Note: all numbers cited are deposited in K, NH, NU, PRE, UDW, except that C.J. Ward & A. Rajh 11464 is not at K.)

KWAZULU-NATAL.—2832 (Mtubatuba): Lake Nhlabane, S of St Lucia estuary, (–CB); *E. mutata*: C.J. Ward & A. Rajh 11600; C.J. Ward & G.W. Begg 11715, 11717. *E. dulcis*: C.J. Ward & A. Rajh 11459, 11464, 11597. *E. acutangula*: C.J. Ward & G.W. Begg 11378.

2. *Eleocharis decoriglumis* Berhaut in *Bulletin de la Société, Botanique de France* 100: 174 (1953).

This decorative species, worthy of cultivation in water features, has been recorded from West Africa (Hooper 1972; Vanden Berghen 1988) and from East Africa

(Uganda and Tanzania), where it is reported as 'very rare' (Haines & Lye 1983). It is described as an annual, unlike its two close relatives *E. acutangula* and *E. variegata*, both of which are stoloniferous perennials, but which lack the striking green and black glume colour contrasts of *E. decoriglumis*. A recent survey of exsiccata has revealed two specimens of *E. decoriglumis* from the same locality in Botswana. These collections were made by different workers and there is an interval of three months between their gatherings.

*Specimens examined* (Note: these specimens had previously been named *E. variegata* and *Eleocharis* sp., compare to *E. acutangula* respectively.)

BOTSWANA.—2023 (Kwebe Hills): Boteti River relict floodplain below Samedupe Bridge, 20.06°75'S; 23.31°6'E. P.A. Smith 1900 (PRE, SRGH); R.P. Ellis 2980 (PRE).

3. *Pycreus muricatus* (Kük.) Napper in *Journal of the East African Natural History Society* 28, No. 124: 6 (1971).

This species may be confused with *P. uniolooides* (R.Br.) C.B. Clarke, which is pantropic in distribution; in Africa it is well known and widespread. *P. muricatus* differs from this better known relative in developing stolons and in its more markedly sculptured (muricate-zonate) achene. In *P. uniolooides* the short rhizome that links the shoots is non-permanent and may be lacking; the achene surface is nearly smooth with faintly marked longitudinal cells that wear away.

Plants of *P. muricatus* were growing in abundance at Graskop. The species is also known from Lydenburg.

*Specimens examined*

NORTHERN PROVINCE (TRANSVAAL).—2430 (Pilgrims Rest): Graskop, (–DD), J. Browning 653 (BOL, GENT, K, NU, PRE), 658 (NU).

EASTERN TRANSVAAL.—2530 (Lydenburg): Onverwacht 733JT Game Trust, (–DD), J. Browning 504 (NU).

## Species new to the flora of KwaZulu-Natal

1. *Eleocharis variegata* (Poir.) C. Presl in Oken, *Isis* 21: 269 (1828).

This variable species has a wide, but scattered tropical distribution (Hooper 1972). In the FSA area it is reported only from Botswana (Retief 1993). Plants are more slender and shorter than most other representatives of subgen. *Limnochloa*, but in general morphology relate to those of *E. acutangula* and *E. mutata*. There is variability in culm structure from terete, to trigonous and quadrangular and sometimes twisted, which range of form is not known for *E. acutangula* or *E. mutata*. There are also differences in floral glumes, achenes and perianth bristles that will not be detailed here.

Plants are here reported from two localities in Natal, where they were growing either in association with *E. acutangula* (in the Howick area) or with *E. mutata* and *E. acutangula* (Lake Nhlabane).

### *Specimens examined*

KWAZULU-NATAL.—2832 (Mtubatuba): Lake Nhlabane, S of St Lucia Estuary, (–CB): *E. variegata*: C.J. Ward & G.W. Begg 11716 (K, NH, NU, PRE, UDW). *E. acutangula*: C.J. Ward & G.W. Begg 11378 (K, NH, NU, PRE, UDW). 2930 (Pietermaritzburg): Howick area, Garmore Farm, 29°21'S, 30°16'E, (–AC): *E. variegata*: P.B. Taylor 132 (NU). *E. acutangula*: P.B. Taylor 131(NU).

2. *Scleria unguiculata* E.A. Rob. in Kew Bulletin 18: 536 (1966).

This species has previously been reported for Togo, East Africa (Tanzania), Central African Republic and Zambia (Haines & Lye 1983). In southern Africa it is known only from Botswana (Franklin Hennessy 1985; Retief 1993).

It is here reported for KwaZulu-Natal. Slender plants were growing in acid bog (sedge meadow), the culms partially supported by associated vegetation. Growing in the

same microhabitat were plants of *S. achenii* De Wild., which has obovoid to subglobose, white-haired achenes in contrast to the ovoid-ellipsoid, fulvous-haired achenes of *S. unguiculata*. This record is the first for the Republic of South Africa and increases by  $\pm 10^\circ$ S latitude, the known distributional area of the species.

### *Specimens examined*

KWAZULU-NATAL.—2832 (Mtubatuba): Lake Nhlabane, S of St Lucia Estuary, (–CB), C.J. Ward & A. Rajh 11611 (NU, PRE, UDW).

## REFERENCES

- BERHAUT, R.R. 1953. Nouveautés dans les Cypéracées du Senegal. *Bulletin de la Société Botanique de France* 100: 173–176.
- FRANKLIN HENNESSY, E.F. 1985. The genus *Scleria* in southern Africa. *Bothalia* 15: 505–530.
- HAINES, R.W. & LYE, K.A. 1983. *The sedges and rushes of East Africa*. East African Natural History Society, Nairobi.
- HOOPER, S.S. 1972. *Eleocharis* (Cyperaceae). *Flora of West tropical Africa* 2nd edn 3,2: 311–314. London.
- KUKKONEN, I. 1990. On the genus *Eleocharis* (Cyperaceae) in the Flora Iranica area, with revised infrageneric classification and nomenclature. *Annals Botanici Fennici* 27: 109–117.
- NAPPER, D.M. 1971. *Pycreus* (Cyperaceae). *Journal of the East African Natural History Society* 28, No. 124: 1–24.
- PRESL, C. 1828. *Oken Isis* 21: 269.
- RETIEF, E. 1993. Cyperaceae (distribution). In T.H. Arnold & B.C. de Wet, Plants of southern Africa: names and distribution. *Memoirs of the Botanical Survey of South Africa* No. 62: 102–116.
- ROBINSON, E.A. 1966. A provisional account of the genus *Scleria* Berg. (Cyperaceae) in the Flora Zambesiaca area. *Kew Bulletin* 18: 487–551.
- ROEMER, J.J. & SCHULTES, J.A. 1817. *Systema vegetabilium* (Caroli a Linné) 2. Stuttgartiae.
- SVENSON, H.K. 1929. Monographic studies in the genus *Eleocharis*. *Rhodora* 31: 121–125, 152–191.
- VANDEN BERGHEN, C. 1988. Cyperacées. In J. Berhaut, Flore illustrée du Sénégal 9: 139–347.

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