A variant of *Eragrostis gummiflua* Nees?

Eragrostis gummiflua occurs in Botswana, Lesotho, Mozambique, Namibia, Swaziland, South Africa and Zimbabwe, usually on sand. Up to now, it has been one of the easier *Eragrostis* species to identify in these regions as it is a perennial with large, sticky, glandular patches below the collar on the leaf sheaths and often at the nodes as well. Sand grains or other pieces of material usually stick to these areas, making them easy to see. The nodes and area below the collar are often flushed purple, though sometimes the glandular patch below the collar is yellow or brown. The spikelet is purple to straw-coloured, with distinct, thick nerves on the lemmas. At maturity, the palea and lemma curve away from each other, leaving only their bases and apices touching and then resembling the pincers of a crab.

In December 1985 the author collected specimens in northeastern KwaZulu-Natal (2732 BA) that bore a close resemblance to *E. gummiflua* but without any indication of sticky glandular patches. A further search in the PRE (National Herbarium, Pretoria) collection yielded two more specimens without these glandular patches, one from the Manzibomvu area (2732 DA) and a another from southern Mozambique between Bela Vista and Umbeluzi (2632 ?). The main differences between these specimens and *E. gummiflua* are provided in Table 1.

To date, the non-sticky specimens seen by the author are from the biogeographical region known as Maputaland, an area that has been identified as an important centre of endemism and biodiversity in southern Africa (Siebert *et al.* 2004). It is bound by the Inkomati-Limpopo River in the north, the Indian Ocean in the east, the Lebombo Mountains in the west and by the St Lucia estuary in the south. Much of the area is a flat, low-level coastal plain with infertile soils consisting of geologically recent fine-grained aeolian sands. Climatically it lies within a transitional zone between

TABLE 1.—The main differences between *E. gummiflua sensu stricto* and the possible variant without the sticky glandular areas

Character	*E. gummiflua sensu stricto*	*E. gummiflua* variant?
Inflorescence	dense with the spikelets densely clustered on short secondary branches (*Myre 1099**)	more open and with fewer spikelets on the secondary branches
Spikelets	'untidy', as the florets appear slightly spirally arranged and overlapping	'neat' with florets clearly distichous
Leaf sheaths below collar	usually sticky, but sometimes not sticky and then clearly different in appearance (*Ellis 5240***)	often flushed purple but not sticky and with no indication of a different appearance in this area

* The *Myre 1099* specimen had obviously been burnt and although sticky areas are present, the inflorescence is less dense tending towards that of the variant.
** *Ellis 5240* was originally thought to be the variant as it did not appear to be sticky, but closer examination showed differences in cell structure on the sheath just below the collar where the sticky glandular patches are usually found.

TABLE 2.—The main differences between *Eragrostis mexicana* subsp. *virescens* and *E. barrelieri*

Character	*E. mexicana* subsp. *virescens*	*E. barrelieri*
Inflorescence	copiously branched	moderately branched, with branches stiff
Inflorescence branches and/or pedicels	eglandular	crateriform glands
Spikelet	generally 1.0–1.2 mm wide but sometimes wider	generally wider than 1.5–1.8 mm
Lemma	1.3–1.7 mm long	1.7–2.3 mm long

tropical and subtropical coastal conditions where many tropical plants and animals reach the southern-most limit of their distribution range (Siebert *et al.* 2004).

Future study and more specimens are needed to decide whether the non-sticky form is a variant of *E. gummiflua* or a new taxon. The author would be happy to receive any duplicates of both forms from Maputaland and further north in Mozambique either on loan or as exchange material for PRE.

Specimens examined

E. gummiflua variant?

KWAZULU-NATAL.—2732 (Ubombo): 2 km S of Phelendaba, (–BA), along track, December 1985, *Smook 5716* (PRE); 2 km S of Phelendaba, December 1985, common around offices, deep sand, *Smook 5727*; Manzibomvu area, east of Mbazwane stream, (–DA), December 1971, open grassland, sandy soil, common, *Ward 7461* (PRE) (Siebert *et al.* 2004).

MOZAMBIQUE.—2632 (Bela Vista): between Bela Vista and Umbelusi, (–?AB), April 1949, *Myre 523* (PRE).

E. gummiflua s. str.

KWAZULU-NATAL.—2832 (Mtubatuba): northeast of Fanie's Island, (–AB), January 1960, in sandy soil, *Feely & Ward 25* (PRE).

MPUMALANGA.—2431 (Acornhoek): Arethusa Farm, Sabi Sands Game Reserve, (–CB), April 1987, damp sandy soil in seepage area, *Ellis 5240* (PRE), specimen without sticky erudite but indications of glandular area on leaf sheaths.

MOZAMBIQUE.—Gaza Dist., Banhina National Park (area covers part of 2232, 2233, 2322, 2323), October 1973, *Tinley 2979*; (possibly 2433CD), between Guija and Macia near side track to S. Paulo de Messano, June 1951, *Myre 1099*.

Eragostis mexicana subsp. *virescens*, a new record for Botswana

The specimen *Hansen 3363* at PRE is here identified as *Eragrostis mexicana* (Hornem.) Link subsp. *virescens* (J.Presl.) S.D.Kock & Sánchez Vega (= *Eragrostis virescens* J.Presl.). Previously the specimen at PRE was wrongly identified as *E. pilosa*, whereas in Cope (1999: 138) the duplicates of *Hansen 3363* housed at Kew and the National Herbarium of Zimbabwe are cited under *E. barrelieri*. In *E. pilosa* the palea falls at ± the same time as the lemma, whereas in *E. mexicana* subsp. *virescens* and *E. barrelieri* the palea persists long after the lemma has fallen. The two last-named taxa differ as given in Table 2 (Gibbs Russell *et al.* 1990; Cope 1999).

It is a new record of *Eragrostis mexicana* subsp. *virescens* for Botswana, therefore for the *Flora of southern Africa* (*FSA*) region, and it is the 115th *Eragrostis* species recorded for the *Flora zambesiaca* region.

Specimen examined

BOTSWANA.—2425 (Gabarone): Sebele Agriculture Research Station, (–DB), *Hansen 3363* (PRE).

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