

GRAMINEAE

A NEW SPECIES OF ERAGROSTIS FROM SOUTH WEST AFRICA

Eragrostis pygmaea De Winter, sp. nov., affinis *E. kingesii* De Winter, sed spiculis minoribus, caryopside orbiculari embryo caryopsidem aequanti, foliis pilis longis mollibus obtectis facile distinguitur.

Gramen annuum, erectum vel suberectum, parvum. *Culmi* plerumque recti vel raro geniculati, 1-nodosi, non ramosi, sparsim pilosi. *Vaginae* pilosae. *Ligula* ciliata. *Foliorum laminae* expansae vel plicatae, nervis scabridis. *Panicula* subdense contracta, ramis solitariis vel binis angulatis scabridis rhachidi glandulosa. *Spiculae* virides vel flavae, 4–7 mm longae, 1–1.25 mm latae, 5–16-florae, glumis lemmatibusque maturitate deciduis paleis rhachidi tortuosa persistentibus; *glumae* inaequales, inferioribus quam superiores brevioribus; lemmata navicularia, ovata, apice acuta, costa scabridiuscula, nervis lateralibus glabris eglandulosis. *Stamina* 3; antherae 0.2 mm longae, valde, late oblongae. *Caryopsis* orbicularis, opaca, pallide brunnea. FIG. 5.

Type: South West Africa, Swakopmund District, Cape Cross, $\frac{1}{2}$ km from coast, *Giess* 8706 (PRE, holo.; K; M; US; WINDHOEK).

Erect or semi-erect annual up to 7 cm high. *Culms* unbranched, straight or more rarely geniculate, usually 1-noded, more rarely 2-noded, basal internodes short, glabrous, upper ones with scattered long soft bulbous-based hairs, without glands below the nodes. *Sheaths* chartaceous to almost membranous, lax, with scattered bulbous-based hairs between the ribs, eglandular. *Ligule* a fringe of stiff hairs. *Collar* very inconspicuous. *Leaf-blade* expanded, up to 2 cm long and 3 mm wide, with long bulbous-based hairs mainly between the nerves below and sparsely scabrid on the nerves on both surfaces, eglandular. *Panicule* moderately to densely contracted, rigid, erect, 2–4 cm long and 1.0–1.5 cm wide; rhachis ribbed, scabrid on the ribs with a few scattered bulbous-based hairs, glands usually present below the point of junction between branches and rhachis; branches single or 2–3 together, bearing branchlets from near the base. *Spikelets* bright green to pallid, about 4–7 mm long and 1–1.25 mm wide, 5–16-flowered, breaking up from below, glumes and lemmas deciduous at maturity leaving the zig-zag rhachis with the pales attached to it. *Glumes* unequal, the lower shorter than the upper, each much shorter than the lemma it subtends, one-nerved, boat-shaped, lower about 0.75 mm, upper 1–1.25 mm long, scabrid on the keels. *Lemmas* boat-shaped, broadly ovate when flattened, 1.5 mm long and 1.0 mm wide, 3-nerved, nerves prominent, smooth except for the keels which are scabrid. *Pales* slightly more than half the length of the lemmas, 2-keeled, the keels strongly curved and scabrid. *Lodicules* 2, cuneate, fleshy, 0.2 mm long. *Stamens* 3; anthers 0.2 mm long, very broadly oblong, purple in colour. *Ovary* glabrous, styles distinct, stigmas plumose. *Caryopsis* opaque, orbicular, very smooth, pale brown. *Embryo* nearly as long as the grain. *Hilum* punctiform, basal.

This minute annual is found in shallow depressions on sandy flats in the central and coastal Namib Desert of South West Africa. This area has an average annual rainfall of about half an inch only and many years may pass without any rains falling at all, in particular localities.

After rains, these plants shoot up and flower and fruit with amazing rapidity. Development may be completed with the moisture available from only one shower. Heavy sea mists are, however, experienced at and up to 20 miles from the coast. It is possible that these plants derive some benefit from the mist by being moistened.

SOUTH WEST AFRICA.—Omaruru: south of the Mesembege, *Giess* 9651. Swakopmund: 10 miles east of Henties Bay on road to Usakos, *De Winter & Hardy* 8050; Cape Cross, $\frac{1}{2}$ km from coast, *Giess* 8706.

E. pygmaea is closely allied to, but easily distinguished from *E. kingesii*. The latter is apparently confined to the deserts around Luderitz south of the high sand dunes, which lie between Luderitz and Walvis Bay, while *E. pygmaea*, on the other hand, has so far only been found north of the high sand dunes.

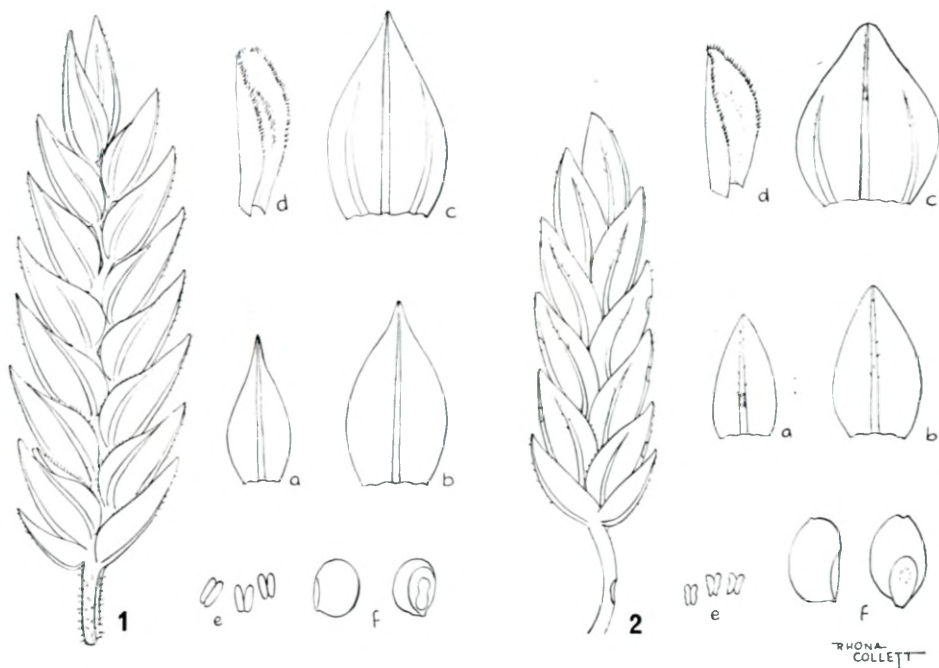


FIG. 5.—1, *Eragrostis pygmaea*, spikelet, $\times 10$ (*De Winter & Hardy* 8050). 2, *E. kingesii*, spikelet, $\times 10$ (*Kinges* 2236). a, lower glume; b, upper glume; c, lemma; d, palea; e, anthers; f, mature caryopsis (all $\times 15$).

The type material was collected by Mr. W. Giess, who kindly made his material available for description when he suspected it to be new. The *De Winter & Hardy* collection consists of only one sheet, because this was the only material available at the time of collecting and is hence only represented in PRE.