

POACEAE

A NEW SPECIES OF *EHRHARTA*

Ehrharta eburnea *Gibbs Russell*, sp. nov. *E. capensi* Thunb. affinis habitu, sed statura minore, parvioribus fusiformis eburneis bulbis et vaginis foliorum basilarium atropurpureis. *E. barbinodi* Nees ex Trin. affinis structura spiculae, sed glumis lemmatibus tantum triplo brevior, et sterilibus lemmatibus in lateribus sparsim puberulis.

Gramen caespitosum perenne 200–500 mm altum, interdum rhizomatibus longis gracilibus. *Culmi* aggregati non ramosi, internodis imis 1 vel 2

uterque bulbum fusiformem valde costatum politum eburneum formantis. *Folia* laminis planis vel involutis ad 100×5 mm, marginibus interdum undulatis leviter incrassatis; ligulae membranaceae pilis fimbriatae; vaginae foliorum basilarium atropurpureae tenues saepe scissae ita bulbum vel bulbos praebentes. *Inflorescentia* panícula angusta secunda ad 130×25 mm, 12–32 patentibus spiculis. *Spiculae* 9–13 mm longae; glumis lemmatibus triplo brevior, plerumque atropurpureis. *Flosculi* lemmatibus sterilibus similaribus sed inaequalibus, primis



FIG. 9.—*Ehrharta eburnea*. Habit. Drawn from Van Breda 4102 and 1409 (spikelets).

nonnihil brevioribus quam secundis, lateribus sparsim puberulis longistrorsum porcatis, marginibus rectis a basi ad apicem, carinis pilis longis mollibus fimbriatis, basibus barbatis, apicibus aristatis; lemma fertilis plus minusve primum sterilem lemma aequans, parum politum. *Stamina* 6. *Caryopsis* obovata, 1,2 mm longa.

Tufted perennial 200–500 mm tall, sometimes with long slender rhizomes. *Culms* crowded, unbranched, with lowest 1 or 2 internodes each forming a fusiform, strongly ribbed, polished, ivory-coloured bulb. *Leaves* with blades flat or rolled, to 100 × 5 mm, margins sometimes undulate, somewhat thickened; ligules membranous, fringed with hairs; sheaths of basal leaves dark purple, thin, often split, thus revealing bulb. *Inflorescence* a narrow secund panicle to 130 × 25 mm, with 12–32 spreading spikelets. *Spikelets* 9–13 mm long; glumes $\frac{1}{2}$ length of lemmas, usually dark purple. *Florets* with sterile lemmas similar but unequal, the first somewhat shorter than the second, sides sparsely puberulous, longitudinally ridged, margins straight from base to tip, keels fringed by long soft hairs, bases bearded, tips aristate; fertile lemma $\pm$ equalling first sterile lemma, somewhat polished. *Stamens* 6. *Caryopsis* obovate, 1,2 mm long. Figs 9 & 10.

TYPE.—Cape 3220 (Sutherland): 15 miles from Sutherland on Calvinia road (–BA), 12", frequent, mixed karoo and grass, 5 000 ft, *Story* 4441 (PRE, holo.; K, iso.).

Known only from localized places in the Calvinia, Sutherland and Montagu Districts, where it grows in rhenosterveld, mixed karoo and grassland, often in rocky places, from 670–1 600 m. Flowering September–November.

CAPE.—3119 (Calvinia): Tierhoek Reserve (–BC), *Henrici* 3474 (PRE, K); Ekerdam (–BC), *L. E. Taylor* 2803 (NBG); along road from Niewoudtville to Oorlogskloof (–BD), *Van Breda* 1409 (PRE); Calvinia (–BD), *Agricultural College Grootfontein* 5 (PRE). 3220 (Sutherland): 14 miles north of Sutherland (–BA), *Acocks* 15129 (PRE, K). 3320 (Montagu): Laingsburg Dist., Bantams Karoo (–BB), *Compton* 12149 (NBG); Farm 'Soutrivier' (–BC), *Van Breda* 4102 (PRE).

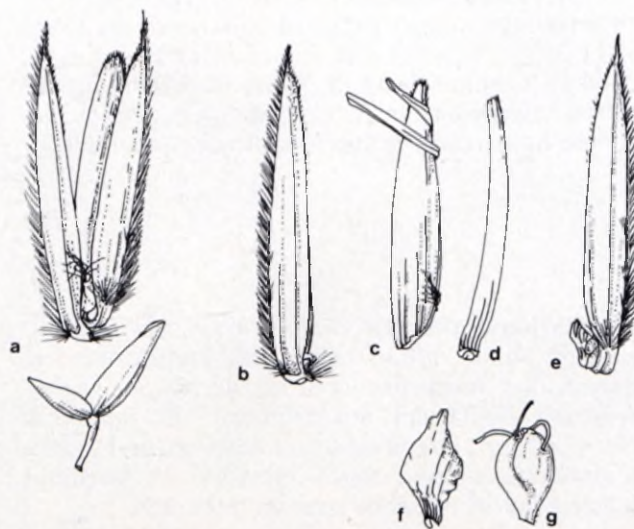


FIG. 10.—*Ehrharta eburnea*. a, spikelet; b, first sterile lemma; c, fertile lemma showing exserted stamens and stigma; d, palea; e, second sterile lemma; all $\times 2$; f, lodicule $\times 4$; g, immature caryopsis $\times 4$. Drawn from Van Breda 1409.

E. eburnea is similar in habit to *E. capensis* Thunb., though smaller in overall size. Both species have crowded unbranched culms bearing bulbs at the lower internodes, and flat leaf blades with undulate somewhat thickened margins. However, the bulbs of *E. capensis* are larger, either cylindrical or spherical and bright orange or chalk-white, depending on the variety. *E. capensis* never has dark purple basal sheaths. The spikelets of *E. eburnea* are quite different from those of *E. capensis*, but are nearly identical to those of *E. barbinodis* Nees ex Trin. in shape, size, ornamentation and colouring. However, *E. barbinodis* has glumes $\frac{1}{2}$ – $\frac{2}{3}$ the length of the lemmas and long hairs along the margins of the sterile lemmas. The similarity of *E. eburnea* to two species, one bulb-forming and the other not, illustrates the reticulate nature of speciation in *Ehrharta*. It is not uncommon for species in groups formed on the basis of spikelet structure to be very

similar vegetatively to species with different spikelet types.

A recent hybrid origin for *E. eburnea* is ruled out on the basis of the known distribution of the three species. The range of *E. capensis* just touches the range of *E. eburnea* at Calvinia and Montagu, but *E. barbinodis* is a Namaqualand species with a range separate from that of *E. eburnea*. Furthermore, *E. capensis* and *E. barbinodis* are sympatric in the Vannrhynsdorp and Kamiesberg degree squares, but *E. eburnea* does not occur there.

The specific epithet *eburnea* refers to the bulb at the culm base, which resembles an ivory bead.

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