

Ehrharta longiflora Sm. : a South-African grass new for the Iberian Peninsula

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Ehrharta longiflora Sm. a South-African grass new for the Iberian Peninsula

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ABSTRACT

CASASAYAS I FORNELL, T. & A. FARRAS I DE BLAS (1988). *Ehrharta longiflora* Sm. a South-African grass new for the Iberian Peninsula. *Candollea* 43: 139-142. In English, English and French abstracts.

Ehrharta longiflora Sm. is a South-African grass collected for the first time near Blanes Botanical Garden "Mar i Murtra" in 1981. It had never been recorded in the Iberian Peninsula before. At present it grows in the town ruderal sites: roadsides, waste places, etc. *E. longiflora* has been reported from Czechoslovakia, Great Britain and the Netherlands.

RÉSUMÉ

CASASAYAS I FORNELL, T. & A. FARRAS I DE BLAS (1988). *Ehrharta longiflora* Sm., graminée sud-africaine nouvelle pour la Péninsule Ibérique. *Candollea* 43: 139-142. En anglais, résumés anglais et français.

E. longiflora est une graminée originaire de l'Afrique du Sud que nous avons trouvée au printemps de 1981 aux alentours du Jardin botanique "Mar i Murtra" de Blanes (Girona). Maintenant cette plante est abondante dans les terrains vagues du village. *E. longiflora* a été récoltée en Tchécoslovaquie, dans le Royaume-Uni et les Pays-Bas.

In the spring of 1981 we found a grass, unknown to us, in the outskirts of "Mar i Murtra" Botanical Garden of Blanes (Girona) 31T DG81. We tried to identify it without success for more than three years by using the bibliography at our disposal. Nevertheless it has been collected in three European countries, this plant is not in "Flora Europaea" 5 (TUTIN & al., 1980). Finally we sent a specimen to Professor J. Malato-Beliz from Elvas (Portugal), who kindly identified it as *Ehrharta longiflora* Sm., a grass whose natural range is South Africa.

The material has been deposited in two Herbaria of Barcelona: Facultat de Biologia (BCC) and Institut Botànic (BC).

According to CHIPPINDALL (1955), *Ehrharteae* is a small tribe with one genus native to Africa, one to Australia and one to Australasia and New Guinea.

Ehrharta is an African genus with about 26 species all natives of South Africa excepting *E. erecta* var. *abyssinica*. The natural range of this genus is the southern and western Cape region, a few number of them chiefly annuals, being found in S.W. Africa.

Description

Ehrharta longiflora Sm. is an annual, almost glabrous plant. Stems up to 100 cm high, sometimes somewhat geniculate below and then rooting from the lower nodes. Leaves 10-20(-25) × 0.5-1.2 cm, flat with serrulate margins. Ligule membranous and fringed. Inflorescence a panicle,



Fig. 1. — *Ehrharta longiflora* Sm.

a, whole plant; b, leaf-sheath, ligule and lower part of leaf; c, spikelet; d, the three florets of spikelet; e, central fertile floret; f, lemma and lodicules; g, ovary.

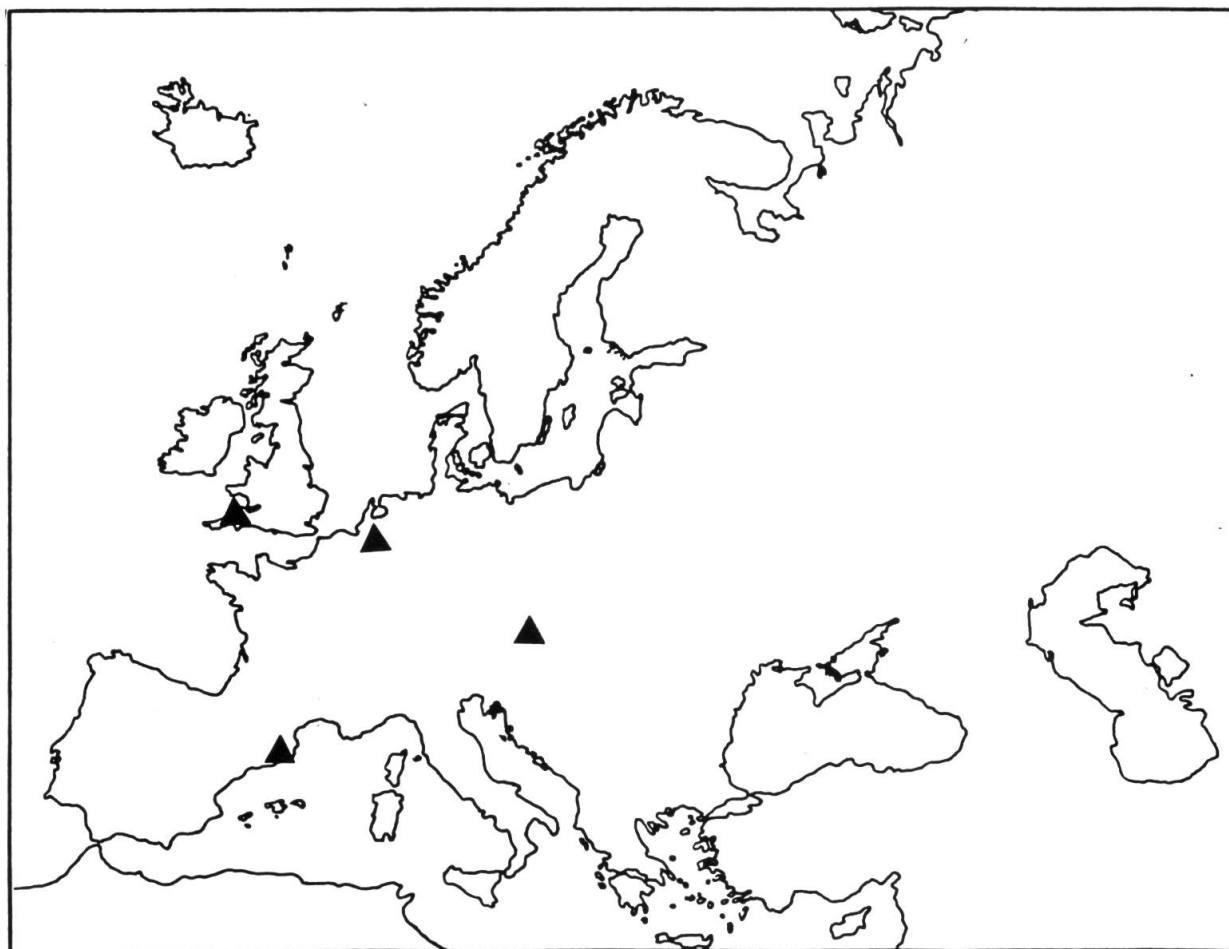


Fig. 2. — Distribution of *Ehrharta longiflora* Sm. in Europe.

generally narrow, up to 7 cm wide and relatively subsecund. Spikelets 15-30 mm (including a long awn) pedicelled and composed of three flowers, two lower ones sterile and the upper one hermaphrodite. Glumes unequal, green, yellowish or purple in colour; the upper one (6 mm) longer than the lower one (4 mm) and both shorter than the spikelet. On maturity the rhachilla disarticulating above the glumes. The two sterile flowers lack palea and are composed only of coriaceous, shiny and scabrid lemmas, hairy on the back and bearded at the base. These lemmas tapering into a scabrid and long awn 6-15(-18) mm. The fertile flower is membranous, nor shiny nor coriaceous with a palea and unawned lemma, somewhat coriaceous at top. It presents two lodicules, six stamens and the grain is elliptical, $4-5.5 \times 1.2-1.8$ mm, yellow-brown in colour.

This grass has 48 chromosomes (PARTHASARATHY *in* CHIPPINDAL, 1955: 557).

Ecology

Ehrharta longiflora Sm. occurs throughout the southern Cape and from Namaqualand. In its original range it appears in the vicinity of water and in ruderal and segetal areas. In Catalonia it grows in ruderal habitats of the town of Blanes, specially roadsides and disturbed grasslands near the sea; it appears largely with other grasses such as: *Hordeum murinum* subsp. *leporinum* (Link) Arcangeli, *Avena barbata* Pott ex Link, *Piptatherum miliaceum* (L.) Cosson, etc. It has also been found as a weed among the ornamental plants growing in "Mar i Murtra" Botanical Garden.

This grass prefers light and moist soils, where it grows vigorously, but it can appear also on dry soils. In shady sites the glumes remain yellow-green, but change into purple colour in sunny places. There are two flowering times in a year: one in spring, the other in early autumn; nevertheless

if the winter is mild it is possible to find a very few flowering specimens at this season. On maturity the spikelets fall easily and the glumes remain in the plant. Reproduction is by the spikelets. It is probable that dispersal of *Ehrharta* is by anemochory and anthropochory (the long awns favouring the latter).

Geographical distribution and modes of introduction

Ehrharta longiflora had never been found so far in the Iberian Peninsula. Nevertheless it had been recorded in Europe. AUQUIER (1980) cites an herbarium specimen collected in 1911 in Belgium; LOUSLEY (1961) and RYVES (1974) report it from Great Britain, whereas DVORAK & KÜHN (1966) do so from Czechoslovakia. Such as commented upon by the last four authors the introduction of this grass in Great Britain and in Czechoslovakia is related to the wool industry.

At the present it is very difficult to know exactly how and when *Ehrharta longiflora* has arrived to Catalonia. It has certainly been introduced with the Botanical Garden activities, but presently we do not know if this South African grass was cultivated in this Garden. At present it is not. So until this point is not elucidated, we shall not be able to say whether its introduction has been intentional, or accidental.

ACKNOWLEDGEMENTS

We would like to express our thanks to Professor J. Malato-Beliz from Elvas for the kind identification of this taxon, and the excellent botanical artist E. Sierra-Rafols, for his fine drawing of the plant.

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