

New combinations in *Cenchrus* (Paniceae, Poaceae) in Europe and the Mediterranean area

Author: Verloove, Filip

Source: Willdenowia, 42(1) : 77-78

Published By: Botanic Garden and Botanical Museum Berlin (BGBM)

URL: <https://doi.org/10.3372/wi.42.42108>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

FILIP VERLOOVE¹

New combinations in *Cenchrus* (*Panicaceae*, *Poaceae*) in Europe and the Mediterranean area

Abstract

Verloove F.: New combinations in *Cenchrus* (*Panicaceae*, *Poaceae*) in Europe and the Mediterranean area. – Willdenowia 42: 77–78. June 2012. – Online ISSN 1868-6397; © 2012 BGBM Berlin-Dahlem.
Stable URL: <http://dx.doi.org/10.3372/wi.42.42108>

Recent molecular phylogenetic studies strongly recommend the amalgamation of the grass genera *Cenchrus* and *Pennisetum*. The generic name *Cenchrus* having priority, the species of *Pennisetum* need to be transferred to it. The correct names in *Cenchrus* for the 15 *Pennisetum* species in Europe and the Mediterranean area are provided, including four new combinations.

Additional key words: *Pennisetum*, taxonomy, nomenclature

The generic limits of *Cenchrus* and *Pennisetum* (*Panicaceae*, *Poaceae*) have always been controversial. In its traditional sense the former is characterised by bristles subtending the spikelets that are fused well above the base while in the latter the bristles are free or only fused at their extreme bases. *Cenchrus ciliaris* L. was considered to be a transitional species: although originally described in *Cenchrus* it was a more or less anomalous species in this genus (bristles only fused at their extreme bases) and its placement in *Pennisetum* as *P. ciliare* (L.) Link was often suggested. This taxonomic view became widely accepted in the past years (see for instance Stieber & Wipff 2003).

Recent molecular phylogenetic studies shed new light on the relationships in *Cenchrus* and *Pennisetum*. Donadio & al. (2009) confirmed that *Cenchrus* and *Pennisetum* are very closely related and demonstrated that most species of *Cenchrus* are in fact nested in *Pennisetum*. At most a core group of a few American species, mainly with a basic chromosome number of $x=17$, could be retained in *Cenchrus* s.str. Chemisquy & al. (2010) confirmed these results and strongly recommend to merge both genera. The generic name *Cenchrus* having priority, all species of *Pennisetum* need to be transferred to *Cenchrus*.

Morrone (in Chemisquy & al. 2010) published new combinations in *Cenchrus* for most of the species and Symon (2010) made some additional name changes for a few Australian taxa.

In Europe and the Mediterranean area (Valdés & Scholz 2009+) 15 (accepted) taxa currently treated as members of *Pennisetum* are concerned. Their correct names in *Cenchrus* are provided in the following:

Pennisetum alopecuroides (L.) Spreng. = ***Cenchrus purpurascens*** Thunb.

Synonym: *Cenchrus compressus* (L.) Morrone

Status of occurrence: introduced in Armenia, Azerbaijan and Georgia.

Pennisetum centrasiaticum Tzvelev in Grubov, Rast. Tsentral. Azii 4: 30. 1968 = ***Cenchrus centrasiaticus*** (Tzvelev) F. Verloove, **comb. nov.**

Status of occurrence: introduced in Germany.

Pennisetum clandestinum Hochst. ex Chiov. = ***Cenchrus clandestinus*** (Hochst. ex Chiov.) Morrone

Status of occurrence: introduced in Algeria, Canary Islands, Cyprus, Greece, Israel, Madeira, Morocco and Spain.

¹ National Botanic Garden of Belgium, Domein van Bouchout, 1860 Meise, Belgium; e-mail: filip.verloove@br.fgov.de

Pennisetum divisum (Forssk. ex J. F. Gmel.) Henrard = ***Cenchrus ramosissimus*** Poir.

Status of occurrence: native in Algeria, Egypt, Israel, Lebanon, Libya, Morocco, Sinai, Syria and Tunisia.

Pennisetum elatum Hochst. ex Steud., Syn. Pl. Glumac. 1: 106. 1854 = ***Cenchrus elatus*** (Hochst. ex Steud.) F. Verloove, **comb. nov.**

Status of occurrence: native in Egypt, Libya, Sinai and Tunisia.

Pennisetum glaucum (L.) R. Br. = ***Cenchrus spicatus*** (L.) Cav.

Synonym: *Cenchrus americanus* (L.) Morrone

Status of occurrence: introduced / cultivated in Algeria, Israel, Libya and Morocco.

Pennisetum macrourum Trin. = ***Cenchrus caudatus*** (Schrad.) Kuntze

Synonym: *Cenchrus macrourus* (Trin.) Morrone

Status of occurrence: introduced in the Canary Islands (La Palma).

Pennisetum orientale Rich. = ***Cenchrus orientalis*** (Rich.) Morrone

Status of occurrence: native in Egypt, Greece, Israel, Lebanon, Syria and Turkey.

Pennisetum purpureum Schumach. = ***Cenchrus purpureus*** (Schumach.) Morrone

Status of occurrence: introduced in Algeria, the Canary Islands, Cyprus, Israel and Morocco.

Pennisetum rogeri Stapf & C. E. Hubbard in Bull. Misc. Inform. Kew 1933: 285. 1933 = ***Cenchrus rogeri*** (Stapf & C. E. Hubbard) F. Verloove, **comb. nov.**

Status of occurrence: native in Algeria.

Pennisetum setaceum (Forssk.) Chiov. = ***Cenchrus setaceus*** (Forssk.) Morrone

Synonyms: *Cenchrus asperifolius* Desf., nom illeg.; *Pennisetum tiberiadis* Boiss.

Note: The earlier binomial *Cenchrus asperifolius* of 1799, given as a synonym by Le Floch & Boulos (2008), is an illegitimate name. These authors furthermore cite in the synonymy the non-existing “*Cenchrus tiberiadis* Boiss.” obviously as an error for *Pennisetum tiberiadis*.

Status of occurrence: native to Algeria, Israel, Lebanon, Libya, Morocco, Sinai, Syria and Tunisia; introduced in the Canary Islands, Sicily and Spain.

Pennisetum sieberianum (Schltdl.) Stapf & C. E. Hubbard = *Penicillaria sieberianum* Schltdl. in Linnaea 25: 565. 1853 = ***Cenchrus sieberianus*** (Schltdl.) F. Verloove, **comb. nov.**

Status of occurrence: introduced in Egypt.

Pennisetum thunbergii Kunth = ***Cenchrus geniculatus*** Thunb.

Synonym: *Cenchrus thunbergii* (Kunth) Morrone

Status of occurrence: introduced in the Canary Islands (La Palma, Tenerife).

Pennisetum villosum R. Br. ex Fresen. = ***Cenchrus longisetus*** M. C. Johnst.

Synonymy: *Cenchrus villosus* (R. Br. ex Fresen.) Kuntze 1898, non (Spreng.) Spreng. 1824.

Status of occurrence: introduced in Algeria, the Balearic Islands, Canary Islands, Corse, Greece, Italy, Morocco, Sardegna and Spain.

Pennisetum violaceum (Lam.) Rich. ex Pers. = ***Cenchrus violaceus*** (Lam.) Morrone

Status of occurrence: native in Algeria and Morocco.

Finally, it is useful to point out that the mistakable citation of “*Echinaria*” as a synonym of *Cenchrus* in Mabberley (2008) does not refer to *Echinaria* Desf. (1749), which is, of course, a very distinct genus of the tribe *Poeae*, but to the later homonym *Echinaria* Fabric. (1759), which, indeed, corresponds with *Cenchrus*.

References

- Chemisquy M. A., Giussani L. M., Scataglini M. A., Kellogg E. A. & Morrone O. 2010: Phylogenetic studies favour the unification of *Pennisetum*, *Cenchrus* and *Odontelytrum* (Poaceae): a combined nuclear, plastid and morphological analysis, and nomenclatural combinations in *Cenchrus*. – Ann. Bot. **106**: 107–130.
- Donadio S., Giussani L. M., Kellogg E. A., Zuloaga F. O. & Morrone O. 2009: A preliminary molecular phylogeny of *Pennisetum* and *Cenchrus* (Poaceae-Panicaceae) based on the *trnL-F*, *rpl16* chloroplast markers. – Taxon **58**: 392–404.
- Le Floch E. & Boulos L. 2008: Flore de Tunisie. Catalogue synonymique commenté. – Montpellier: Le Floch.
- Mabberley D. J. 2008: Mabberley's plant-book, ed. 3. – Cambridge: Cambridge University.
- Stieber M. T. & Wipff J. K. 2003: *Cenchrus*. – Pp. 529–535 in: Flora of North America Editorial Committee (ed.), Flora of North America north of Mexico **25**. – New York, etc.: Oxford University.
- Symon B. K. 2010: New taxa, nomenclatural changes and notes on Australian grasses in the tribe *Panicaceae* (Poaceae: Panicoideae). – Austrobaileya **8**: 187–219.
- Valdés B. & Scholz H. (with contrib. from Raab-Straube E. von & Parolly G.) 2009+: Poaceae (pro parte majore). Euro+Med Plantbase, the information resource for Euro-Mediterranean plant diversity. – Published at <http://ww2.bgbm.org/EuroPlusMed/> [accessed 6.2.2011].