



A new combination in *Cenchrus* (Poaceae: Paniceae), with lectotypification of *Panicum divisum*

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Abstract

The new combination, *Cenchrus divisus* (J.F. Gmelin) Verloove, Govaerts & Buttler, is proposed for the species widely known as *Pennisetum divisum* (J.F. Gmelin) Henrard, and a lectotype for *Panicum divisum* J.F. Gmelin is designated.

Key words: *Cenchrus*, lectotypification, nomenclature, *Panicum*

As a result of recent molecular phylogenetic studies the generic boundaries of *Cenchrus* L. and related genera have considerably changed. Donadio *et al.* (2009) found that *Cenchrus* and *Pennisetum* Rich. are very closely related and demonstrated that most species of *Cenchrus* are in fact nested in *Pennisetum*. Chemisquy *et al.* (2010) confirmed these results and recommended merging both genera. The generic name *Cenchrus* having priority, all species of *Pennisetum* needed to be transferred to *Cenchrus*. Morrone (in Chemisquy *et 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.

The correct names in *Cenchrus* for all but one of the 15 *Pennisetum* species in Europe and the Mediterranean area, including four new combinations, were given in Verloove (2012). The exception is *Pennisetum divisum* (J.F. Gmelin) Henrard, a desert grass growing on sand hills, stony ground, among rocks and in dry stream beds in Pakistan, North and Northeast Africa, the Middle East and India (e.g. Phillips, 1995: 267), for which *Cenchrus ramosissimus* (Poir. in Lamarck, 1804: 51) was accepted, the earliest validly published name in *Cenchrus* for that species. However, there is no obstacle to transferring the name *Panicum divisum* J.F. Gmelin (1791: 156) to *Cenchrus*, which has priority over the later *C. ramosissimus*.

When Gmelin (1791: 156) published *Panicum divisum* he referred to *P. dichotomum* of Forsskål (1775: 20). The latter is not the name of a new taxon (as which it would be an illegitimate later homonym) but the implicit re-use (and misuse) of *P. dichotomum* Linnaeus (1753: 58). The diagnosis of Gmelin is not identical with the description given by Forsskål, but it is an abbreviated version, with the same meaning. Thus, *P. divisum* Gmelin can be considered a renaming of *P. dichotomum* in the sense of Forsskål, not of Linnaeus. Poir. note “an distinctum a dichotomo?” does not affect the valid publication of the name.

Since Forsskål did not use the epithet *divisum*, he cannot be cited as ex-author.

As a consequence, the following new combination is proposed:

Cenchrus divisus (J.F. Gmelin) Verloove, Govaerts & Buttler, comb. nov.
= *Panicum divisum* J.F. Gmelin, Syst. Nat.: 156. 1791 (Gmelin 1791: 156).

Synonyms:

= *Pennisetum divisum* (J.F. Gmelin) Henrard (1938: 162).
– “*Panicum dichotomum*” sensu Forsskål (1775: 20), not of Linnaeus.

Pennisetum dichotomum Delile (1813: 159, t.8/1), nom. illegit.

= *Cenchrus ramosissimus* Poir. in Lam. (1804: 51).

= *Pennisetum elatum* Hochst. ex Steudel (1854: 106).

Lectotypification of *Panicum divisum*

Gmelin's description of *Panicum divisum* was based on collections made in 1761 by Peter Forsskål in Cairo, Egypt. His herbarium ("Herbarium Forsskålii") contains 1,750 plants with descriptions (but held originally 2,093 samples, as described by Forsskål in his "Flora Ægyptiaco-Arabica"). In the Museum Botanicum Hauniense of the University of Copenhagen (C) three of Forsskål's specimens are preserved that correspond with "*Panicum dichotomum*". They are recorded as "Addit. N° 1548, 1549 and 1550" and were annotated to represent "*Pennisetum divisum* (J. Gmelin) Henrard (= *P. dichotomum* (Forsskål) Delile; *Panicum dichotomum* Forsskål)" by T.A. Cope in March 1983. Out of these three collections N° 1548 comprises several culms and inflorescences and best corresponds with the descriptions as given by Gmelin (1791: 156) and Forsskål (1775: 20), respectively "P. culmo ramosissimo dichotomo, spicis hirsutis (...)" and "Caules erecto-diffusi, dichotomi, ramosissimi, ad altitudinem ulnae surgunt. Spicae articularum basi & calyce extrorsum hirsutae. (...). Folia plana, linearia, glabra". It is designated here as the lectotype of *Panicum divisum*.

Panicum divisum J.F. Gmelin

Lectotype (designated here): [Cairo, Egypt; 1761] *P. Forsskål* in Herb. Forsskål n° 1548 (C n° 10002719).

A high resolution scan of this type specimen can be found at JSTOR Plant Science:

<http://plants.jstor.org/specimen/viewer/c10002719>.

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