

Typification of *Vulpia attenuata* (Poaceae)

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Abstract

The various interpretations of *Vulpia attenuata* Parl. are outlined. The species is lectotypified on a Sicilian specimen of *V. geniculata* (L.) Link in **FI**.

Keywords: *Vulpia geniculata*, *Vulpia sicula*, Parlatore, FI herbarium

Introduction

Although all *Vulpia* species in central and northern Europe are annuals, with 1-3 cleistogamous or slightly exerted anthers up to 2 mm long, both perennial species and those with three long-exserted anthers more than 2 mm long occur in the Mediterranean basin. The commonest of the latter in the Iberian Peninsula and North Africa is the annual *V. geniculata* (L.) Link. This species extends in Europe to Mediterranean France and Italy but is much rarer there and very scattered in Italy (including Sardinia and Sicily), where the related annual *V. ligustica* (All.) Link is much commoner. A third apparently related (i.e. morphologically similar) species that occurs in Mediterranean France and Italy is the perennial chasmogamous *V. sicula* (C. Presl) Link. All three species occur in North Africa.

Variation in *Vulpia geniculata*

Vulpia geniculata is variable in Spain, where var. *longiglumis* Caball. is often recognized (Rodriguez & Devesa, 2020), but is much more variable in North Africa (Morocco to Tunisia). Four extra subspecies were recognised there by Maire (1955) and by Dobignard & Chatelain (2010): subspp. *attenuata* (Parl.) Trab., *pauana* (Font Quer) Maire, *monanthera* (Maire) Maire and *breviglumis* (Trab.) Maire. Only subspp. *geniculata* and *attenuata* also occur in Europe. The first two in the above list were originally described as species, but more work in North Africa is required before their value can be assessed adequately. The most distinctive is subsp. *pauana*, which is distinguished by its short stature, dense, contracted panicle and short pedicels and lemma awns. According to Maire (1955), subsp. *attenuata* has a narrower panicle, narrower glumes and lemma, and a longer awn on the upper glume than subsp. *geniculata*. The above epithets *longiglumis* and *breviglumis* refer to the upper glume surpassing or falling short of the adjacent (second) lemma.

Identity of *Vulpia attenuata*

Parlatore (1844) described "*Vulpia attenuata* nob." and stated that it occurred in Sicily "in campi marittimi vicino Palermo a Mondello". Despite Parlatore's provision of

a long description, and detailed comparisons with both *V. geniculata* and *V. setacea* Parl. (*V. sicula* var. *setacea* (Parl.) Hack.), *V. attenuata* has not subsequently been accepted at species level, but has been placed under one or other of three species, including the above two. Fiori (Fiori & Paoletti, 1896) reduced it to *V. geniculata* var. *attenuata* (Parl.) Fiori, and Trabut (Battandier & Trabut, 1895) treated it as *V. geniculata* subsp. *attenuata* (Parl.) Trab. Similarly, Maire (1955), in his monumental *Flore de l'Afrique du Nord*, presented *attenuata* as one of five subspecies of *V. geniculata* (see above), and the same treatment is maintained in Dobignard & Chatelain's *Index Synonymique* of the North African flora (2010), in the catalogue of Sicilian plants by Giardina et al. (2007, p. 455), and (as at April 2021) in the Euro+Med Plantbase. In *The Plant List* (version 1.1, 2013), however, *V. attenuata* is treated as a synonym of *V. sicula*, and the same is true in the latest Italian checklist (Bartolucci et al., 2018), and in *The World Checklist of Selected Plant Families* (as at January 2021). Finally, Pignatti (2017), in the second edition of *Flora d'Italia*, placed *V. attenuata* as a synonym of *Vulpiella tenuis* (Tineo) Kerguelen, a much more distantly related taxon which has several characters diverging widely from those of *V. attenuata*. In the first edition (Pignatti, 1982) it had appeared under *V. geniculata*.

Gussone (1845) recombined Parlatore's plant as *Festuca attenuata* (Parl.) Guss. shortly after Parlatore's publication, referring to it and giving the same localities in Sicily.

Typification of *Vulpia attenuata*

In the protologue of *V. attenuata*, in addition to citing the Sicilian localities above, Parlatore (1844) stated under geographical distribution that it had also been found in Sardinia by Prof. G.G. Moris, who (Parlatore claimed) confused it with (i.e. identified it as) *Festuca sicula*.

The correct attribution of *V. attenuata* obviously depends on its typification. Dr Chiara Nepi, Head Curator at Museo di Storia Naturale, Firenze (**FI**), has kindly provided me with high resolution images of the two type sheets. One (FI007024, Fig. 1) has two specimens: the one on the left is *V. ciliata* Dumort., as determined by P. Auquier in 1978; the one on the right is *V. geniculata*, as determined by E. Banfi in 1984. Both are covered by one label in Parlatore's handwriting, with the locality "in arenosis maritimis Mondello". The other sheet (FI007023, Fig. 2) also has two specimens. The one on the right is *V. ligustica* (no locality); a label on the sheet with that determination by P. Auquier (Liège) in 1978 probably refers to that specimen, although that is not clearly indicated. The one on the left is *V. sicula*; it was collected by Moris in Sardinia and is labelled by him *Festuca sicula*, with *Vulpia attenuata* added by Parlatore (hand-writing attributed by Chiara Nepi).

Hence there are two syntypes, both good representative specimens: Parlatore's from Sicily and Moris's from Sardinia, either of which could be chosen as lectotype since they both have label data clearly referred to in the protologue.

My choice of the specimen of *V. geniculata* as lectotype is based on: (1) certain characters stated by Parlatore, particularly the annual habit and the erect, non-second panicle, which ally it to *V. geniculata* rather than to *V. sicula*; (2) the listing by Parlatore, under 'Observations', of more differences from *V. sicula* than from *V. geniculata*; and (3) the treatment of *V. attenuata* under *V. geniculata* by the majority of previous Italian and North African botanists. It remains the case,

however, that the majority of Italian and North African specimens that I have seen labelled *V. geniculata* subsp. *attenuata* are *V. sicula*. The main character mentioned by Parlatore that could suggest *V. sicula* is the pedicels thickened at the apex, but by no means ensiform ("apice incrassati, haud ensiformes"), whereas in *V. geniculata* they are usually ensiform (flattened and conspicuously thickened at the apex). The annual versus perennial habit might be thought of as unequivocal evidence either way, but in fact tillers are often rather few in *V. sicula* and it is easy to gather a specimen without any. The description of the lemma as 5-veined with obsolete laterals rules out *Vulpiella* as its possible identity.

Vulpia attenuata Parl., *Giorn. Bot. Ital.* 1(2): 349 (1844)

Lectotype (selected here): Sheet FI007024 (Fig. 1), right hand specimen, Sicilia, in arenosis maritimis Mondello, coll. Parlatore (= *V. geniculata* (L.) Link) (**FI**).

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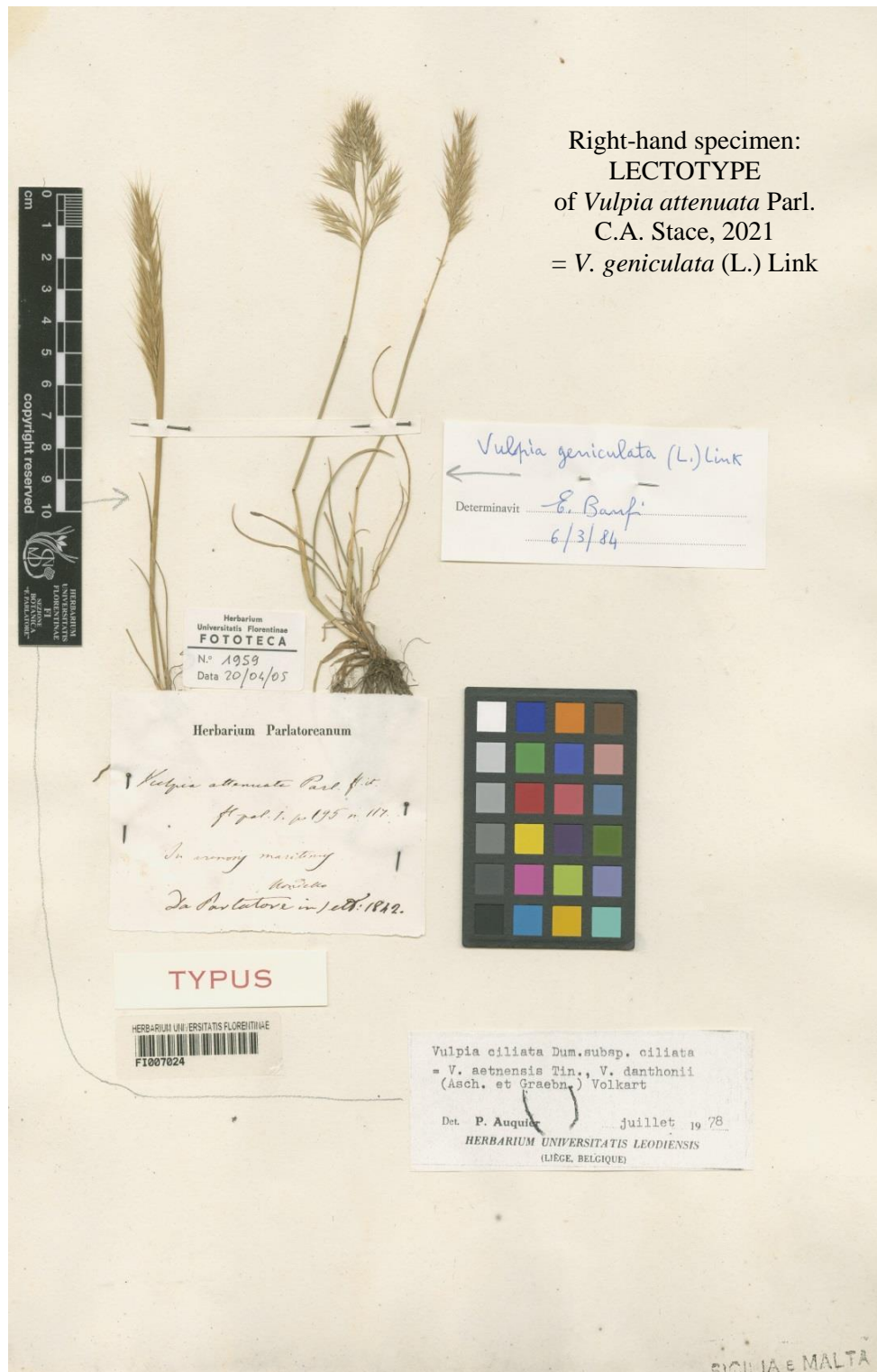


Figure 1. Sheet FI1007024. Right-hand specimen is the lectotype of *Vulpia attenuata* Parl., selected here, collected by F. Parlatore from Mondello, Sicily. Left-hand specimen is *V. ciliata* Dumort. Reproduced by kind permission of Museo di Storia Naturale dell'Università, Firenze, via Chiara Nepi. The lectotype label has been added to the image; it is not present on the FI sheet.

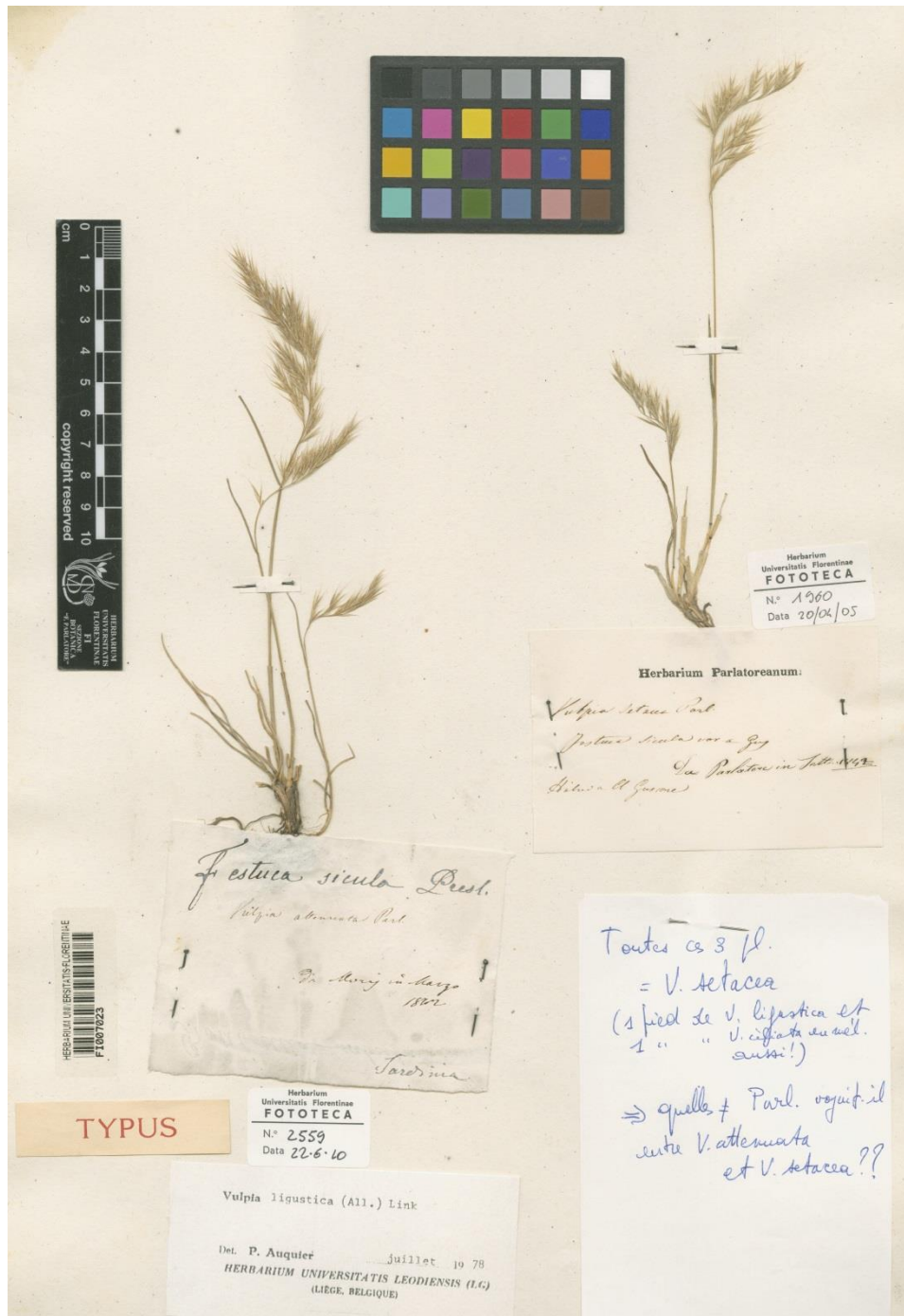


Figure 2. Sheet FI007023. Left-hand specimen is *Vulpia sicula* (C. Presl) Link, collected by G.G. Moris in Sardinia. Right-hand specimen is *V. ligustica* (All.) Link. Reproduced by kind permission of Museo di Storia Naturale dell'Università, Firenze, via Chiara Nepi. The unattributed label pinned to the bottom right of the sheet bears Paul Auquier's handwriting (fide C.A.S.).

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