

Contributions to the knowledge of Jurinea mollis s.l. (Compositae). 1. Jurinea mollis subsp. moschata, a synonym of J. mollis subsp. mollis

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Source: Willdenowia, 28(1/2): 47-52

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

URL: https://doi.org/10.3372/wi.28.2803

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Abstract

Conti, F.: Contributions to the knowledge of Jurinea mollis s.l. (Compositae). 1. Jurinea mollis subsp. moschata, a synonym of J. mollis subsp. mollis. – Willdenowia 28: 47-52. 1998. – ISSN 0511-9618.

The typification of the basionym *Carduus mollis* is discussed, a previous lectotypification rejected and a new lectotype with an epitype designated. *Jurinea mollis* subsp. *moschata* is shown to be identical with *J. mollis* subsp. *mollis* and its basionym *Carduus moschatus* is lectotypified. *J. mollis* f. *erectobracteata* is described as a forma new to science.

Jurinea mollis s.l. comprises several infraspecific taxa distributed from Austria and Italy across SE Europe (Slovakia, S Moravia, Hungary, Romania, Slovenia, Croatia, Montenegro, Bosnia-Herzegovina, Serbia, Albania, Greece, Bulgaria) to W Anatolia. Holub & al. (1971: 193) consider it a "Pannonian subendemic extending into adjoining regions, especially into the Illyrian part of the Balkan peninsula".

Jurinea mollis was first described by Clusius (1583: 661) from the eastern edge of the Alps in the environment of Vienna under the phrase name "Carduus mollis laciniato folio". On p. 662 he also provided a good illustration (Fig. 1). Linnaeus (1759: 328) stated as place of origin "in alpibus Austriae", cited the phrase of Clusius and named it Carduus mollis. This binomial was first typified by Danin & Davis (1975) with the specimen LINN 966/43. The specimen selected by these authors is, however, not only very meagre, rendering it very difficult to ascertain its identity in such a difficult genus. Even worse, designating this specimen as lectotype, these authors ignored that its geographical origin, indicated on the sheet as "Orient", is in striking contradiction to both the protologue and the established use of the name: in accordance with the protologue of Carduus mollis L., the combination Jurinea mollis (L.) Reichenb. has been used in all European floras as for the taxon represented by the plants growing near Vienna. Preliminary systematic studies, moreover, revealed that the Turkish populations of J. mollis differ from the European populations in some features and that, most likely, J. mollis s.str. is not present in Turkey, which is the probable provenance of the specimen LINN 966/43. As has also been recommended by Wagenitz (in litt.), the typification of Jurinea mollis by Danin & Davis (1975) must therefore be rejected not only for formal reasons but because it would upset the established nomenclature.



Fig. 1. Jurinea mollis – icon "Carduus mollis laciniato folio" in Clusius, Rar. Stirp. Pannon.: 662. 1583, the lectotype of the basionym Carduus mollis L.

Original material that is in accordance with Linnaeus' protologue is apparently not extant, thus lectotypification of the basionym *Carduus mollis* L. with the icon by Clusius (1583: 662; see Fig. 1) is the most appropriate choise. The population described and illustrated by Clusius and named by Linnaeus still grows near Vienna and an instructive specimen from this provenance is additionally designated as epitype here.

According to Kozuharov (1976), *Jurinea mollis* subsp. *moschata* (Guss.) Nyman is present along the Apennines and the NW part of the Balkan peninsula and considered to be restricted to these territories.

Jurinea mollis subsp. moschata was described by Gussone (1825) as Carduus moschatus from Japygia, distinguished by "lacinia extima caeteris longiore, et odore totius plantae moschato a *C. molli* diversus". As lectotype a specimen is chosen here that was collected by Gussone at Taranto in the Japygia regions and labelled in his own handwriting (see Fig. 2). The text of the label is cited in the protologue. The date of this collection is not indicated, but judging from the handwriting, the label was probably written between 1817 and 1823-24 as Pasquale (1871) and La Valva (1993) supposed for other labels with similar characteristics. According to his unpublished "Manoscritti di viaggio", Gussone botanized only once in Japygia, in 1824 (Trotter 1948). The species gathered are listed chronologically by locality; *Carduus moschatus* (sub *Carduus mollis moschatus*) was collected between May 26-30 at "Masseria di Giovannazzi al di là di Palagiano" (near Taranto). It can be concluded that these are the locality and collecting dates of the specimen at NAP chosen as lectotype.

Carduus moschatus was later transferred to *Jurinea* by Candolle (1838) and considered a variety of *J. mollis* by Visiani (1847) that differs only in the leaf form since the muscatel odor, in contrast, has been noticed also in *J. mollis* populations from other areas. Bertoloni (1850) considered it then a mere synonym of *J. mollis*, a view that is confirmed here on the basis of own observations regarding the notable variability in the leaf form, even in samples from the same location.

Recent floras such as 'Flora europaea' (Kozuharov 1976) and 'Flora d'Italia' (Pignatti 1982) use features of the stems and the number of capitula to separate *J. mollis* subsp. *moschata* from *J. mollis* subsp. *mollis*. It is stated that in the latter the stems are simple, leafy in basal half and the inflorescences have 1-3 capitula, whereas in *J. mollis* subsp. *moschata* the stems are many-branched and leafy throughout with inflorescences of 5 or more capitula. However, none of the specimens studied from peninsular Italy or Croatia had more than three capitula. Very rarely they had more than one capitulum, and if so, usually only one capitulum was well developed. This is also the case in one of the three flowering stems of the lectotype specimen; the other two stems have only one capitulum each (Fig. 2).

Notwithstanding the thorough study (based on a large number of exsiccata from B, BEO, FI, G, herb. Conti, NAP, WU) of further characters, such as the hairiness and posture (revolute, patent, appressed) of the bracts, the length of the outer, median and inner bracts, the length of the flowers and the pappus, the length and morphology of the achenes, the habitus and dimensions of the capitula, no discontinuities were found between the populations from Italy, Austria, Hungary, Croatia, Serbia and Montenegro. Therefore *J. mollis* subsp. *moschata* is considered here to be not distinct from *J. mollis* subsp. *mollis*.

Jurinea mollis (L.) Reichenb., Fl. Germ. Excurs. 1: 290. 1830-32 \equiv *Carduus mollis* L., Amoen. Acad. 4: 328. 1759. – Lectotype (designated here): [icon] "Carduus mollis laciniato folio" in Clusius, Rar. Stirp. Pannon.: 662. 1583; epitype (designated here): Austria, in collibus apricis prope Vindobonam, 5.1879, *Halacsy* (G 8306/76!).

= Jurinea mollis subsp. moschata (Guss.) Nyman, Consp. Fl. Eur.: 415. 1879 \equiv Carduus moschatus Guss., Ind. Sem. Bocc.: 3. 1825 \equiv Jurinea moschata (Guss.) DC., Prodr.: 677. 1838 \equiv Jurinea mollis var. moschata (Guss.) Vis., Fl. Dalmat. 2: 52. 1847. – Lectotype (designated here): "Carduus mollis moschatus, Taranto, [26.-30.5.1824], Gussone" (NAP! – Fig. 2; isolectotype FI ["Carduus mollis moschatus, Taranto, colline calcaree, Parlatore (5.1843) da Gussone"]!).



Fig. 2. Jurinea mollis - lectotype of the synonym Carduus moschatus Guss. at NAP. - Photograph NAP.

Jurinea mollis subsp. *mollis* is probably present also in Slovakia, Albania and Romania, while its presence in Greece, Macedonia, Bulgaria and Turkey has become doubtful and in need of further studies.

In the populations from Abruzzo (Central Italy) the outer involucral bracts are mostly appressed, but sometimes within the same group of individuals some plants can have patent or slightly curved bracts. This feature seems not to be correlated with other differences. It was found, though more rarely, also in plants from the Gargano area, but was never observed in other populations. Since characters of the bracts are often used in the keys as a diagnostic feature, it is considered helpful to report and formally recognize this form.

Jurinea mollis subsp. mollis f. erectobracteata F. Conti, forma nova

Holotype: Italy, Parco Nazionale d'Abruzzo, Bisegna (AQ), pendii rupestri e pascoli aridi, 1220 m, 14.6.1997, *Conti* (Hb. Conti; isotype B).

Ab Jurinea mollis subsp. mollis involucri bracteis erectis adpressis differt.

Distribution: Italy (Abruzzo, Gargano).

Additional specimens of J. mollis f. erectobracteata examined

ITALY: Parco Nazionale d'Abruzzo, Bisegna, 14.6.1997, *Conti* (herb. Conti); ibid., 29.7.1996, *Conti* (herb. Conti); Bisegna, Valle di Fonte d'Appia, 28.6.1995, *Conti* (herb. Conti); Gioia dei Marsi, Colle delle Cerese, 29.5.1995, *Conti* (herb. Conti); Gioia Vecchio, Fosso Macrana, 29.5.1995, *Conti* (herb. Conti); Gargano, presso S. Marco in Lamis, 18.5.1997, *Conti* (herb. Conti); Gargano, Vallone di Pulsano, 18.5.1997, *Conti* (herb. Conti); Molina Aterno, 30.6.1910, *Vaccari* (FI); presso Salle, 6.1876, *Profeta* (FI); M. Morrone, 25.7.1856, *Huet du Pavillon* (G); S. Nicola a Caramanico, 2.7.1906, *Vaccari* (FI); Caramanico, 7.1872, *Sommier* (FI); ibid., 1876, *Boissier* (G); ibid., 25.6.1887, *Sardagna* (WU); ibid., 25.7.1874, *Levier* (FI); da Caramanico al Guado di S. Antonio, 8.1874, *Groves* (FI); tra Pacentro e Sulmona, 1874, *Pedicino* (FI); Velino, verso la Grotta di S. Benedetto sopra Massa d'Albe, 4.8.1875, *Levier* (FI); Villavallelonga, 26.7.1903, *Grande* (FI).

Acknowledgements

Thanks are due to the Directors and Curators of the herbaria B, BEO, CAME, FI, G, NAP and WU for the loan of specimens. Special thanks are due to Prof. Gerhard Wagenitz (Göttingen) and Dr Annalisa Santangelo for their help in selecting the lectotypes of *Jurinea mollis* and *J. mollis* subsp. *moschata* respectively, to Dr Steve Cafferty (Linnaean Plant Name Typification Project) for his valuable advice, to Dr Robert Vogt and Prof. Werner Greuter (Berlin) for their help during my visit in Berlin, to Dr Dmitar Lakusić for sending me some specimens from Yugoslavia.

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