



Typification, morphological characterization and distribution of *Knautia gussonei* (Caprifoliaceae)

FABRIZIO BARTOLUCCI* & FABIO CONTI

Centro Ricerche Floristiche dell'Appennino (Università di Camerino-Parco Nazionale del Gran Sasso e Monti della Laga), 67021 Barisciano (AQ), Italy; e-mail: fabrizio.bartolucci@gmail.com

*Corresponding author

Abstract

Knautia gussonei is a species endemic to central Italy, described by Szabó and was based on a herbarium specimen collected by Gussone in Abruzzo. This species was long neglected or misinterpreted by Italian botanists and confused with *K. drymeia* subsp. *centrifrons*. Accordingly, to correct the application of this name, a specimen collected by Gussone in Abruzzo and kept in NAP is designated here as the lectotype. For *K. gussonei* a detailed morphological description and information about habitat, phenology and distribution are provided. Furthermore, morphological comparison between *K. gussonei* and *K. drymeia* subsp. *centrifrons* is provided.

Key words: Abruzzo, endemic, Italian flora, *Knautia*, taxonomy, typification

Introduction

Knautia gussonei Szabó (1934: 136) was first described from Central Italy (Abruzzo) based on a herbarium specimen collected by Gussone in 1823 and kept in NAP. The populations referable to this species were earlier reported as *K. sylvatica* (Linnaeus 1753: 142) Duby (1828: 257) (i.e., under the name *Scabiosa sylvatica*: Gussone 1826, Tenore 1830, 1831, Bertoloni 1835, Crugnola 1894) a name recently rejected as a *nomen ambiguum* (Gutermann 2010; Brummitt 2011) and previously interpreted in the sense of *K. drymeia* Heuffel (1856: 39) s.str. or *K. maxima* (Opiz in Berchtold & Opiz 1838: 203) J.Ortmann in Glückselig (1842: 86) [= *K. dipsacifolia* Kreutzer (1840: 223)]. After its description, *K. gussonei* was long neglected probably for the absence of a detailed morphological description or adequate analytical keys and cited yet as *K. sylvatica* (i.e. Zodda 1954, 1967 under the name *K. arvensis* var. *sylvatica*) or confused with *K. maxima* (i.e. Tammaro 1983 sub *K. dipsacifolia*). Ehrenforfer (1962) was the first stating *K. gussonei* was a species belonging to *K. drymeia* group. Later Ehrendorfer (1976) and Pignatti (1982) reported it only from its *locus classicus*, as a species endemic to central Italy (Abruzzo). More recently *K. gussonei* is recognized as a species endemic to central Italy (e.g., Greuter *et al.* 1986, Conti *et al.* 2005), but for the same area is also reported *K. drymeia* Heuffel subsp. *centrifrons* (Borbás 1904: 18) Ehrendorfer (1973: 263) (Tondi 1994, Conti 1998, Ballelli *et al.* 2005, Conti *et al.* 2005, Anzalone *et al.* 2010). The latter taxon, described from Capolago (southern Switzerland, close to the border of Italy) and Lecco (northern Italy), is known only from these two countries (Aeschimann *et al.* 2004, Conti *et al.* 2005).

During the study of some taxa described from central Apennine, we traced in NAP the original material on which the name *K. gussonei* was based. This has allowed us to critically review the herbarium specimens coming from central Apennine previously referred to *K. drymeia* subsp. *centrifrons* and to clarify the identity and distribution of *K. gussonei*.

This work was carried out within the initiative “Italian Loci Classici Census” (Domina *et al.* 2012), aimed at providing data on the original material of the plants described from Italy (e.g. Aghababyan & Raimondo 2011, Conti *et al.* 2011, Di Pietro *et al.* 2012, Gallo *et al.* 2012, Iamónico & Peruzzi 2012, Peruzzi & Carta 2013, Peruzzi *et al.* 2012, 2013a, 2013b, Bartolucci & Conti 2013, Bartolucci & Peruzzi 2013, Bartolucci *et al.* 2013, Bartolucci & Domina 2014, Iamónico & Peruzzi 2014).

Acknowledgements

Many thanks are due to Dr. Roberta Vallariello and Dr. Gabriele Galasso, curators of NAP and MSNM herbaria, respectively. We are also grateful to Dr. Sandro Ballelli for providing us herbarium specimens kept in CAME.

References

- Aeschimann, D., Lauber, K., Moser, D.M. & Theurillat, J.-P. (2004) *Flora alpina* 2. Haupt Verlag, Bern, 1188 pp.
- Aghababayan, M. & Raimondo, F.M. (2011) Typification of the name *Papaver hybridum* L. (*Papaveraceae*). *Taxon* 60: 1475–1476.
- Anzalone, B., Iberite, M. & Lattanzi, E. (2010) Flora vascolare del Lazio. *Informatore Botanico Italiano* 42: 187–317.
- Ballelli, S., Lucarini, D. & Pedrotti, F. 2005. Catalogo dell'Erbario dei Monti Sibillini di Vittorio Marchesoni. *Braun-Blanquetia* 38: 1–257.
- Bartolucci, F. & Conti, F. (2013) Taxonomical notes on *Geum micropetalum* Gasp. and *Geum heterocarpum* Boiss. (*Rosaceae*) from Italy. *Plant Biosystems*: 147: 806–811.
<http://dx.doi.org/10.1080/11263504.2013.829886>
- Bartolucci, F. & Domina, G. (2014) Typification and taxonomic characterization of *Thymus longicaulis* C.Presl (*Lamiaceae*). *Annales Botanici Fennici* 51: in press.
- Bartolucci, F. & Peruzzi, L. (2013) *Thymus paronychioides* (*Lamiaceae*), a neglected species from Sicily belonging to section *Hypodromi*. *Folia Geobotanica* 49. <http://dx.doi.org/10.1007/s12224-013-9156-2>.
- Bartolucci, F., Peruzzi, L. & Passalacqua, N. (2013) Taxonomic notes and typification of names within the genus *Thymus* L. (*Lamiaceae*). *Taxon* 62: 1308–1314.
<http://dx.doi.org/10.12705/626.1>
- Bertoloni, A. (1835) *Flora Italica* 2(1). Tip. R. Masi, Bologna, 128 pp.
- Borbás, V. (1904) *Revisio Knautiarum*. Typis Alberti Kovács de Nagyajta, Kolosvárini, 94 pp.
- Brummitt, R.K. (2011) Report of the Nomenclature Committee for Vascular Plants: 63. *Taxon* 60: 1202–1210.
- Berchtold, F. & Opiz, Ph.M. (1838) *Oekonomisch-technische Flora Böhmens* 2(1). J. H. Pospischil (ed.), Prag, 297 pp.
- Conti F., (1998) An annotated checklist of the flora of the Abruzzo. *Boccone* 10: 1–376.
- Conti, F., Abbate, G., Alessandrini, A. & Blasi, C. (eds.) (2005) *An annotated checklist of the Italian vascular flora*. Palombi Editori, Roma, 420 pp.
- Conti, F., Giordano, C., Moraldo, B. & Ricceri, C. (2011) Contributions to the taxonomy of the Italian and northern Balkanic taxa in the *Centaurea rupestris* group (*Asteraceae*). *Annales Botanici Fennici* 48: 193–218.
<http://dx.doi.org/10.5735/085.048.0301>
- Crugnola, A. (1894) *La vegetazione al Gran Sasso d'Italia*. G. Fabbri Ed., Teramo, 273 pp.
- Di Pietro, R., Viscosi, V., Peruzzi, L. & Fortini P. (2012) A review of the application of the name *Quercus dalechampii*. *Taxon* 61: 1311–1316.
- Domina, G., Giusso Del Galdo, G., Gargano, D., Labra, M., Peccenini, S., Peruzzi, L. & Raimondo, F.M. (2012) The Italian Loci Classici Census. *Taxon* 61: 1351–1353.
- Duby, J.E. (1828) *Botanicon Gallicum* 1. Mme Ve Bouchard-Huzard (ed.), Paris, 554 pp.
- Ehrendorfer, F. (1962) Beiträge zur Phylogenie der Gattung *Knautia* (*Dipsacaceae*), I. Cytologische Grundlagen und allgemeine Hinweise. *Oesterreichische Botanische Zeitschrift* 109: 276–343.
<http://dx.doi.org/10.1007/bf01289204>
- Ehrendorfer, F. (1976) *Knautia* L. In: Tutin, T.G., Heywood, V.H., Burges, N.A., Moore, D.M., Valentine, D.H., Walters, S.M. & Webb, D.A. (eds.), *Flora Europaea* 4. Cambridge University Press, Cambridge, pp. 60–67.
- Gallo, L., Guglielmo, L. & Nardi, E. (2012) Typification of *Alyssum argenteum* All. (*Brassicaceae*) and of *Sedum alsinifolium* All. (*Crassulaceae*), two Italian endemic taxa. *Webbia* 67: 183–188.
<http://dx.doi.org/10.1080/00837792.2012.10670918>
- Glückselig, A.M. (1842) *Der Elbogner Kreis des Königreichs Böhmen*. Gebrüder Franjeck, Carlsbad, 218 pp.
- Greuter, W., Burdet, H.M., Long, G. (1986) *Med-Checklist: A critical inventory of vascular plants of the circum-Mediterranean countries, 3. Dicotyledones (Convolvulaceae-Labiatae)*. Conservatoire et Jardin Botanique, Ville de Genève, Genève & Berlin, 395pp.
- Gussone, G. (1826) *Plantae rariores quas in itinere per oras jonii ac adriatici maris et per regiones Samnii et Aprutii collegit G. Gussone*. Ex Regia Typographia. Neapoli, 401 pp.
<http://dx.doi.org/10.5962/bhl.title.44889>

- Gutermann, W. (2010) 1921 Proposal to reject the name *Scabiosa sylvatica* (Dipsacaceae). *Taxon* 59: 298.
- Gutermann, W., Ehrendorfer, F. & Fischer, M. (1973) Neue Namen und kritische Bemerkungen zur Gefäßpflanzenflora Mitteleuropas. *Oesterreichische Botanische Zeitschrift* 122: 259–273.
<http://dx.doi.org/10.1007/bf01441577>
- Heuffel, J.A. (1856) Die in Ungarn vorkommenden Arten der Gattung *Knautia* Coult., nebst einigen Bemerkungen. *Flora (Regensburg)* 39: 49–56.
- Iamónico, D. & Peruzzi, L. (2012) Lectotypification of the Linnaean name *Acanthus spinosus* (Acanthaceae). *Phytotaxa* 62: 11–12.
- Iamónico, D. & Peruzzi, L. (2014) Typification of Linnaean names in *Malvaceae* for the Italian flora. *Taxon*: in press
<http://dx.doi.org/10.12705/631.11>
- Kreutzer, J.C. (1840) *Anthochronologion plantarum Europae mediae*. Friedrich Volke's Buchhandlung, Wien, 236 pp.
- Linnaeus, C. (1762) *Species Plantarum*, ed. 2, 1. Laurentii Salvii, Stockholm, 784 pp.
- Peruzzi, L., Adorni, M., Dura, T., Ghillani, L., Pasquali, G., Rignanese, L., Ronconi, D. & Teruzzi, M. (2012) *Allium cyrilli* Ten. (Amaryllidaceae): typification, taxonomy and update of the Italian distribution. *Phytotaxa* 71: 53–58.
- Peruzzi, L. & Carta, A. (2013) A taxonomic revision of *Silene nocturna* species complex (Caryophyllaceae) in Italy. *Phytotaxa* 88: 38–48.
- Peruzzi, L., Conti, F. & Bartolucci, F. (2014) An inventory of vascular plants endemic to Italy. *Phytotaxa*: in press.
- Peruzzi, L., Bartolucci, F., Astuti, G., Bernardo, L. & Conti, F. (2013a) *Knautia dinarica* (Caprifoliaceae): taxonomy, typification and update of the Italian distribution. *Phytotaxa* 116: 34–40.
<http://dx.doi.org/10.11646/phytotaxa.116.1.3>
- Peruzzi, L., Santangelo, A. & Jarvis, C.E. (2013b) Lectotypification of Linnaean names in the Italian endemic flora. *Taxon* 62(4): 827–829.
<http://dx.doi.org/10.12705/624.27>
- Szabó, Z. (1934) Újabb adatok Nyugat-és Déleürópa Knauti inak ismeretéhez. *Botanikai Közlemények* 31: 109–141.
- Tammaro, F. (1983) Compendio sulla Flora del Gran Sasso d'Italia. Repertorio sistematico delle piante rinvenute sul massiccio del Gran Sasso d'Italia da 600 m fino alla vetta, 2914 m. *Monografia Quaderni Museo Speleologico Rivera* 2: 3–58.
- Tenore, M. (1830) *Succinta relazione del viaggio fatto in Abruzzo ed in alcune parti dello Stato Pontificio dal Cavalier Tenore nell'Està del 1829*. Stamperia della Società Filomatica, Napoli, 90 pp.
- Tenore, M. (1831) *Sylloge Plantarum Vascularium Florae Neapolitanae Hucusque Detectarum*. Ex Typographia Fibreni. Neapoli, 555 pp.
- Thiers, B. (2012) Index Herbariorum: A global directory of public herbaria and associated 602 staff. Available at: <http://sweetgum.nybg.org/ih/> (accessed: 10 February 2013).
- Tondi, G. (1994) Contributo alla flora dei Monti della Laga (Appennino Centrale – Versante laziale). *Annali di Botanica (Roma)* 50, Suppl. 9 (1992): 45–85.
- Zodda, G. (1954) La Flora Teramana. *Webbia* 10: 1–317.
<http://dx.doi.org/10.1080/00837792.1954.10669624>
- Zodda, G. (1967) Compendio della Flora Teramana. *Archivio Botanico e Biogeografico Italiano* 43: 35–101; 115–156.