

## Typification of the Linnaean name *Centaurea seridis* (Asteraceae)

P. PABLO FERRER-GALLEGÓ<sup>1,2</sup>, ROBERTO ROSELLÓ<sup>3</sup>, EMILIO LAGUNA<sup>1</sup>, ALBERTO GUILLÉN<sup>3</sup>, JOSÉ GÓMEZ<sup>4</sup> & JUAN B. PERIS<sup>3</sup>

<sup>1</sup> Servicio de Vida Silvestre. Centro para la Investigación y Experimentación Forestal, Generalitat Valenciana, Avda, Comarques del País Valencià 114, 46930 Quart de Poblet, Spain; email: flora.cief@gva.es

<sup>2</sup> VAERSA. Marià Cuber, 17, 46011, València, Spain

<sup>3</sup> Departament de Botànica, Facultat de Farmàcia, Universitat de València, Avda, Dr. Moliner 50, 46100 Burjassot, Spain

<sup>4</sup> Instituto Botánico, Sección de Sistemática y Etnobotánica, Universidad de Castilla-La Mancha, Avda, de La Mancha s/n, 02071 Albacete, Spain

The genus *Centaurea* Linnaeus (1753: 909) (Asteraceae) comprises a large number of taxa mainly occurring in the Mediterranean region and southwest Asia (Susanna & Garcia-Jacas 2007). *Centaurea seridis* Linnaeus (1753: 915) is distributed from south Europe (Spain incl. Balearic Islands, Italy incl. Sicily, France, Albania and Greece) to northwest Africa (Algeria, Morocco and Tunisia). From a nomenclatural standpoint, *Centaurea seridis* has not been typified (Jarvis 2007: 402). This paper proposes the designation of a lectotype for this Linnaean name, based on the analysis of the protologue and original material.

### Typification

The protologue of *Centaurea seridis* (Linnaeus 1753: 915–916) consists of the *nomen specificum legitimum* “*Centaurea calycibus palmato spinosis, foliis decurrentibus tomentosis oblongis: infimis sinuato-dentatis*” with a quotation from an earlier work of Sauvages (1751: 288), followed by three synonyms cited from Bauhin (1623: 272): “*Jacea, foliis seridis candicantibus, purpurea*”, Bauhin & Cherler (1651: 33): “*Jacea purpurea hispanica muricata*”, and Ray (1693: 320): “*Jacea latifolia, spinosis capitulis pulchris, flore purpureo*”, as well as the indicated provenance “*Habitat in Hispania*”.

In the Linnaean herbarium at the Swedish Museum of Natural History (S) there are two relevant herbarium sheets. The specimen Herb. Linn. No. 362.7 (S, code S09-20128) (Fig. 1) is annotated “*Centaurea seridis* Linn.” by J. E. Wikström, “33” (the number of *C. seridis* in *Species Plantarum*) in the Linnaean hand and “*seridis*” by Linnaeus filius. The Linnaeus’ symbol “*m*” written at the base of the plant denotes Magnol’s herbarium, originated from the south of France, which was received by Linnaeus in 1749 (Jarvis 2007) and thus had been studied clearly before 1753. There are also annotations on the back: “Herb. Alstroemerii”, and “a Linné f.” by A. Dahl at the base of the sheet. This herbarium sheet contains only a plant fragment, with well-preserved flowering heads and leaves, but it is part of the original material.

The specimen Herb. Linn. No. 362.5 (S, code S09-20123) (image available at <http://plants.jstor.org/specimen/s09-20123?s=t>) is annotated with “*Centaurea seridis* L.” but not by Linnaeus and with “*seridis*” by D. Solander, and there is the number “33” at the base of the plant also probably by Linnaeus; besides, the sheet was “titled” “*Centaurea*” on the top, apparently in the hand of Samuel Niklas Casström who may have possessed the specimen while working at the Botanical Museum in Stockholm. The back side of the specimen has annotations “*Centaurea calycibus palmato spinosis, foliis decurrentibus tomentosis oblongis: infimis sinuato-dentatis*. Linn. Spec. plant. 915. 33.” by D. Solander, and also “Herb. Casstromii.” This specimen is also original material of the name. It also contains only a plant fragment, with flowering heads and leaves, which condition is rather poor.

Both specimens possess certain features that match the original diagnosis, in particular the appendages of involucre bracts with palmately arranged spines (“*calycibus palmato spinosis*”) and decurrent tomentose leaves (“*foliis decurrentibus tomentosis oblongis*”). Of the two specimens, the fragment in Herb. Linn. No. 362.7 is significantly better preserved.

We have been unable to locate any further original material in any Linnaean and Linnaean-linked herbaria.

Besides the discussed specimens, Bauhin & Cherler (1651: 33) provided an illustration that can be considered original material. This illustration is in agreement with the Linnaean diagnosis except for the involucre bracts (“calycibus palmato spinosis”) which cannot be seen in the figure. This character is considered diagnostic of the species as currently recognized (Invernón & Devesa 2013). But the characters of the basal leaves which were described by Linnaeus as lobed (“foliis ... infimis sinuato-dentatis”) cannot be seen from the available specimens and were probably taken from the illustration.

Although both the illustration (Bauhin & Cherler 1651: 33) and the herbarium specimens Herb. Linn. No. 362.5 and 362.7 are identified with *Centaurea seridis* L., the specimen 362.7 at S is a better choice for the lectotype of the Linnaean name, especially as compared with the illustration. This specimen has better preserved leaves and flowering heads and allows maintaining traditional use of the Linnaean name. Besides, unlike for the other specimen, its collector and provenance are known.

***Centaurea seridis*** Linnaeus (1753: 915–916).

**Type:**—[Southern France.] *Magnol s.n.* in Herb. Linn. No. 362.7 (S, code S09-20128) (lectotype designated here). Fig. 1.

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## References

- Bauhin, C. (1623) *Pinax theatri botanici*. Sumptibus et typis Ludovici Regis, Basel, 522 pp.  
<http://dx.doi.org/10.5962/bhl.title.712>
- Bauhin, C. & Cherler, J.C. (1651) *Historia plantarum*, vol. 3. Ebroduni [Yverdon], 1074 pp.
- Invernón, R. & Devesa, J.A. (2013) Revisión taxonómica de *Centaurea* sect. *Seridia* (Juss.) DC. (Asteraceae) en la Península Ibérica e Islas Baleares. *Acta Botanica Malacitana* 38: 49–102.
- Jarvis, C. (2007) *Order out of chaos: Linnaean plant names and their types*. Linnean Society of London and the Natural History Museum, London, 1016 pp.
- Linnaeus, C. (1753) *Species Plantarum*. L. Salvius, Holmiae [Stockholm], 1200 pp.  
<http://dx.doi.org/10.5962/bhl.title.669>
- Ray, J. (1693) *Historia plantarum generalis*. vol. 1. S. Smith & B. Walford, Londini [London], 983 pp.
- Sauvages de la Croix, F.B. de (1751) *Methodus foliorum, seu Plantae florum Monspeliensis*. La Haye, 343 pp.
- Susanna, A. & Garcia-Jacas, N. (2007) Tribe *Cardueae*. In: Kadereit, J.W. & Jeffrey, C. (Eds.) *Kubitzki's The families and genera of vascular plants*. vol. 8. Springer, Berlin, pp. 123–147.