



## Typification of two Linnaean names: *Centaurea aspera* and *Centaurea isnardii* (Asteraceae)

P. PABLO FERRER-GALLEGO<sup>1,2</sup>, ROBERTO ROSELLÓ<sup>3</sup>, EMILIO LAGUNA<sup>1</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

<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

Author for correspondence: P. Pablo Ferrer-Gallego, [flora.cief@gva.es](mailto:flora.cief@gva.es)

### Abstract

The typification of the names *Centaurea aspera* L. and *C. isnardii* L. (Asteraceae) is discussed. A lectotype for *C. aspera* is designated from original material conserved in UPS-BURSER (Joachim Burser Herbarium). *Centaurea isnardii* is typified by an illustration of Isnard (1719) confirming this name as a synonym of *C. aspera* subsp. *aspera*.

**Key words:** Asteraceae, *Centaurea*, lectotype, Linnaeus

### Introduction

The genus *Centaurea* L. (Asteraceae) comprises a large number of taxa mainly distributed in the Mediterranean region and southwest Asia (Susanna & Garcia-Jacas 2007). *Centaurea aspera* L., from south and southwest Europe, northwest Africa (Morocco and Algeria) and also introduced in Canary Islands, Australia, North America and several European countries (Belgium, Ireland, United Kingdom, Germany, Sweden, Norway) (Invernón & Devesa 2013), is one of the species of *Centaurea* described by Linnaeus (1753), a name that appears not to have been typified (Jarvis 2007: 399). This paper proposes the designation of lectotypes for two Linnaean names in the genus *Centaurea* based on a study of the protologues, and consultation of Linnaeus's original material of *C. aspera* and *C. isnardii*, the latter generally considered synonymous with *C. aspera* subsp. *aspera*.

### Typification

Linnaeus's protologue (1753: 916) of *Centaurea aspera* consists of a *nomen specificum legitimum* “*Centaurea calycibus squamis palmato-quinquespinosis, foliis lanceolatis dentatis*”, with a citation from an earlier work by Sauvages (1751: 289). This is followed by three synonyms cited from van Royen (1740: 142) “*Centaurea calycibus spinosis, foliis lanceolatis dentatis*”, Bauhin (1623: 273) and Ray (1693: 319) “*Stoebe squamis asperis*”, and Bauhin & Cherler (1651: 33) “*Jacea, cum spinosis capitulis, purpurea tenuifolia*”, and with the indicated locality “*Habitat Monspelii, inque Hetruria, Lusitania*”. None of these synonyms are accompanied by illustrations. Van Royen's phrase name is not connected to a specimen in the van Royen herbarium in Leiden (L), but three specimens in volumen XV(2) of Burser's herbarium in Uppsala were identified as *Centaurea aspera* by Linnaeus (Savage 1937: 50).

Jarvis (2007: 399) cited as Linnaeus's original material of *C. aspera* the icon of Bauhin & Cherler (1651: 33), but unfortunately this does not appear to be correct. The figure on page 33 appears to be associated with the name “*Jacea latifolia spinosis capitulis pulchris flore purpureo*”, not with the polynomical that Linnaeus cites in the synonymy of

of *V. muricata*. However, the Bauhin's specimens of the sheet XV(2): 38 correspond to *C. aspera*, as was indicated by Linnaeus (see Savage 1937: 50). This sheet includes two fragments, only one of these [right-hand specimen] with flowers (with capitulum or head) that is a good match to the Linnaean diagnosis. Therefore, the right-hand specimen at Burser's sheet XV(2): 38 is designated here as lectotype, as it allows maintaining the traditional and current application of the Linnaean name *Centaurea aspera*. We have been unable to locate any further original material in any Linnaean and Linnaean-linked herbaria.

### ***Centaurea aspera* Linnaeus (1753: 916)**

**Type:**—Herb. Burser XV(2): 38 (UPS-BURSER) [right-hand specimen] (lectotype designated here) (Fig. 1).

= *Centaurea isnardii* Linnaeus (1753: 916)

**Type:**—[icon] in Isnard in Mém. Acad. Roy. Sci. Paris 1719: 164, t. 9. 1719 [illustration reproduced by Jarvis 2007: 119] (lectotype designated here).

*Centaurea isnardii* was described by Linnaeus (1753: 916) with a diagnosis “*Centaurea calycibus palmato-spinosis, foliis lyrato-dentatis hispidis subamplexicaulibus, floribus sessilibus terminalibus*” and only one synonym, “*Calcitrapoides procumbens, cichorii folio, flore purpurascens*” from Isnard (1719: 164, t. 9). The indicated locality was “*Habitat in Europa australi?*”. Isnard provided an excellent illustration and, as we have been unable to locate any further original material in any other Linnaean and Linnaean-linked herbaria (see Jarvis 2007: 400), it is the only extant original material eligible for the typification of the name (see Jarvis 2007: 119). The identity of Isnard's plate confirms the status of *C. isnardii* as a taxonomic synonym of *C. aspera*.

#### Acknowledgements

The authors wish to thank the staff of the herbarium UPS, particularly to Mats Hjertson, for their help and support. Thanks to two anonymous reviewers and Marco Duretto (NSW) for their help in revising the manuscript.

## 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, J. & Cherler, J.C. (1651) *Historia plantarum. Tomus III*. Ebroduni. Yverdon, 882 pp.
- Invernón, R. & Devesa, J.A. (2013) Revisión taxonómica de *Centaurea* sect. *Seridia* (Juss.) DC. (Asteraceae) en la Península Ibérica e Islas Baleares. *Acta Bot. Malac.* 38: 49–102.
- Isnard, A.T.D. (1719) Description de deux nouvelles plantes. *Mémoires de l'Académie Royale des Sciences* 1719: 164–173 [214–226], pl. 9, 10.
- Jarvis, C. (2007) *Order out of chaos: Linnaean plant names and their types*. Linnean Society of London and the Natural History Museum, London, pp. [xi], 1016p.
- L'Obel, M. de (1591) *Icones stirpium [tomus primus]*. Antuerpiae [Amberes]: Ex officina Plantiniana. Apud Viduam et Ioannem Moretum, 816 pp.
- Linnaeus, C. (1753) *Species Plantarum*. Holmiae [Stockholm]: Impensis Laurentii Salvii, 560 pp.  
<http://dx.doi.org/10.5962/bhl.title.669>
- Ray, J. (1693) *Historia plantarum generalis. Tomus primus*. Impresis Samuelis Smith & Benjamini Walford, Regiae Societatis typographorum, ad insignia principis in coemeterio D. Pauli, Londini, 983 pp.
- Sauvages de la Croix, F.B. de (1751) *Methodus foliorum, seu Plantae florum Monspeliensis*. La Haye, 143 pp.
- Savage, S. (Ed.) (1937) *Caroli Linnaei determinationes in Hortum Siccum Joachimi Burseri. The text of the manuscript in the Linnaean Collections*. The Linnean Society, London, 78 pp.
- Stearn, W.T. (1957) An Introduction to the Species Plantarum and cognate botanical Works of Carl Linnaeus. In: Linnaeus, C. (Ed.) *Species Plantarum, A Facsimile of the first edition, 1753, vol. 1*. Ray Society, London, pp. i–xiv, 1–176.
- Susanna, A. & Garcia-Jacas, N. (2007) Tribe *Cardueae*. In: Kadereit, J.W. & Jeffrey, C. (Eds). *The families and genera of vascular plants*. Springer, Berlin, pp 123–147.
- Turland, N.J. (2006) Lectotypification of *Campanula saxatilis*, *Phyteuma pinnatum* and *Verbascum arcturus*, Linnaean names of three taxa endemic to Crete. *Willdenowia* 36: 303–309.  
<http://dx.doi.org/10.3372/wi.36.36124>

- Turland, N.J. & Jarvis, C.E. (1997) Typification of Linnaean specific and varietal names in the *Leguminosae* (Fabaceae). *Taxon* 46: 457–485.  
<http://dx.doi.org/10.2307/1224388>
- Van Royen, A. (1740) *Florae Leydensis prodromus, exhibens plantas quae in horto académico Lugduno-Batavo aluntur*. Apud Samuelem Luchtmans, Leiden, 538 pp.  
<http://dx.doi.org/10.5962/bhl.title.693>