

## Typifications of Four Names Applied to the Genus *Jurinea* (*Cardueae*, *Asteraceae*)

Shruti KASANA<sup>1</sup> and Arun K. PANDEY<sup>1,2,\*</sup>

<sup>1</sup>Department of Botany, University of Delhi, Delhi, 110007 INDIA;

<sup>2</sup>Mansarovar Global University, Bilkisganj, Sehore, 466111 INDIA

\*Corresponding author: arunpandey79@gmail.com

(Accepted on April 13, 2022)

During the revision of genus *Jurinea* Cass. in India, we found that four names viz., *Aplotaxis albescens* DC., *A. auriculata* DC., *Saussurea chenopodiifolia* Klatt, and *S. decurrens* Hemsl. applied to the genus *Jurinea* need to be typified. Therefore, in order to stabilize the application of these names lectotypes are designated here.

**Key words:** *Asteraceae*, *Jurinea*, lectotypification.

*Jurinea* Cass. is one of the species-rich genera within *Cardueae* (*Asteraceae*) and contains more than 180 species in the world (Szukala et al. 2019). In India, the genus is represented by ca. 20 species distributed in the alpine regions of the Himalaya. The systematic position of this genus has been analysed by various authors and some of them (Kita et al. 2004, Susanna and Garcia-Jacas 2007) suggested a broader circumscription for *Jurinea*, i.e., by including closely related genera such as *Himalaiella* Raab-Straube and *Lipschitziella* Kamelin. However, no generic revision was made at that time. Kasana et al. (2020) using morphological and molecular analyses proposed that the genus *Himalaiella* should be merged under the circumscription of *Lipschitziella* and hence, necessary nomenclatural changes were made. They also considered *Lipschitziella* to be closely related to *Jurinea*. However, it was only recently that the generic circumscriptions were redefined by Herrando-Moraira et al. (2020) and presently the genus *Jurinea* is monophyletic

after inclusion of genera like *Himalaiella* and *Lipschitziella*.

During our revisionary work on the genus *Jurinea* in India, we investigated the protologues as well as type specimens of all the names associated with Indian *Jurinea* and found that several nomenclatural problems exist. Lectotypifications for many names have already been done in the floristic documentation by Chen (2015); nevertheless, various names still need typification. We found that the names, *Aplotaxis albescens* DC., *A. auriculata* DC., *Saussurea chenopodiifolia* Klatt, and *S. decurrens* Hemsl. which are presently associated with the genus *Jurinea* lack a designated type. In order to provide stability to these names, lectotypes are designated here following ICN (Shenzhen Code; Turland et al. 2018).

We have reviewed the relevant literature, including protologues and major taxonomic treatments, and examined the herbarium specimens preserved in various herbaria, including online databases and electronic

- in subtribe *Saussureinae* (*Compositae: Cardueae*): insights from Hyb-Seq data. *Taxon* **69**(4): 694–714.
- Kasana S., Dwivedi M.D., Uniyal P.L. and Pandey A.K. 2020. An updated circumscription of *Saussurea* (*Cardueae, Asteraceae*) and allied genera based on morphological and molecular data. *Phytotaxa* **450**: 173–187.
- Kita Y., Fujikawa K., Ito M., Ohba H. and Kato M. 2004. Molecular phylogenetic analysis and systematic of the genus *Saussurea* and related genera (*Asteraceae: Cardueae*). *Taxon* **53** (3): 679–699.
- Klatt F.W. 1878. Systematische analyse und description der neuen species. Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München **8**: 83–98.
- Lipschitz S.J. 1979. Rod *Saussurea* DC. (*Asteraceae*). Nauka, Leningrad.
- Prado J., Hirai R.Y. and Moran R.C. 2015. (046–048) Proposals concerning inadvertent lectotypifications (and neotypifications). *Taxon* **64**: 651.
- Stafleu F.A. and Cowen R.S. 1988. *Taxon*. Lit., ed. 2. Scheltema & Holkema, Bohn.
- Susanna A. and Garcia-Jacas N. 2007. Tribe *Cardueae*. In: Kubitzki K. (ed.), *The Families and Genera of Vascular Plants*. pp. 123–146. Springer Verlag, Berlin.
- Szukala A., Korotkova N., Gruenstaeudl M., Sennikov A., Lazkov G.A., Litvinskaya S.A., Gabrielian E., Borsch T. and Raab-Straube E von. 2019. Phylogeny of the Eurasian genus *Jurinea* (*Asteraceae: Cardueae*): Support for a monophyletic genus concept and a first hypothesis on overall species relationships. *Taxon* **68**: 112–131.
- Turland N.J., Wiersema J.H., Barrie F.R., Greuter W., Hawksworth D.L., Herendeen P.S., Knapp S., Kusber W.H., Li D.Z., Marhold K., May T.W., McNeill J., Monro A.M., Prado J., Price M.J. and Smith G.F. (eds.) 2018. International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* **159**. Koeltz Botanical Books, Glashütten. <https://doi.org/10.12705/Code.2018>.

S.Kasana<sup>1</sup>, A.K.Pandey<sup>1,2</sup>: *Jurinea* 属 (キク科アザミ連) に組み替えた 4 学名のタイプ指定

インド産 *Jurinea* 属 (キク科アザミ連) の再検討に当たり、*Jurinea* 属の下に置かれるべき4種 *Aplotaxis albescens* DC., *A. auriculata* DC., *Saussurea chenopodiifolia* Klatt

と *S. decurrens* Hemsl. のレクトタイプ指定を行った。

(<sup>1</sup>インド・University of Delhi, Department of Botany,  
<sup>2</sup>インド・Mansarovar Global University)