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Kazem NEGARESH



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ISSN (imprimé / *print*): 1280-8571/ ISSN (électronique / *electronic*): 1639-4798

Lectotypification of two Turkish endemic taxa of *Klasea* Cass. (Asteraceae, Cardueae)

Kazem NEGARESH

Department of Horticultural Science, Faculty of Agriculture,
Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani (Iran)
negaresh@asnrkh.ac.ir

Submitted on 8 April 2025 | accepted on 26 May 2025 | published on 27 January 2026

KEY WORDS

Asteraceae,
Klasea,
Serratula,
Schumeria,
Türkiye,
Turkey,
endemic,
lectotypifications.

MOTS CLÉS

Asteraceae,
Klasea,
Serratula,
Schumeria,
Turquie,
endémisme,
lectotypifications.

Negaresh K. 2026. — Lectotypification of two Turkish endemic taxa of *Klasea* Cass. (Asteraceae, Cardueae). *Adansonia*, sér. 3, 48 (2): 7-11. <https://doi.org/10.5252/adansonia2026v48a2>. <http://adansonia.com/48/2>

ABSTRACT

Two Turkish endemic taxa of *Klasea* Cass. (Asteraceae) are lectotypified, namely *Klasea aznavouriana* (Bornm.) Greuter & Wagenitz and *K. bornmuelleri* (Azn.) Greuter & Wagenitz. Lectotypes are deposited at B and G respectively. In addition, the relevant synonyms, type details and images of the type specimens are provided.

RÉSUMÉ

Lectotypification de deux taxons endémiques turcs du genre Klasea Cass. (Asteraceae, Cardueae).
Deux taxons endémiques turcs du genre *Klasea* Cass. (Asteraceae) sont lectotypifiés, à savoir *Klasea aznavouriana* (Bornm.) Greuter & Wagenitz et *K. bornmuelleri* (Azn.) Greuter & Wagenitz. Les lectotypes correspondants sont déposés à B et G. En outre, les synonymes pertinents, les détails du type et les images des spécimens types sont fournis.

INTRODUCTION

Klasea Cass., a genus in the subtribe Centaureinae of the tribe Cardueae in Asteraceae Bercht. & J.Presl (Hellwig 2004; Martins & Hellwig 2005; Martins 2006; Susanna & Garcia-Jacas 2007, 2009), comprises over 65 species that chiefly occur in Europe, the Mediterranean region, south-western Asia and northern Africa (Susanna & Garcia-Jacas 2007). According to modern taxonomy, the genus includes eight sections in Turkey: *Klasea* sect. *Coriaceae* L.Martins, *K.* sect. *Demetria* (Boriss.) L.Martins, *K.* sect. *Lasiocephalae* L.Martins, *K.* sect. *Klasea*, *K.* sect. *Melanolepis* L.Martins, *K.* sect. *Leuzeopsis* (Boriss.) L.Martins, *K.* sect. *Quinquefoliae* L.Martins and *K.* sect. *Schumeria* (Iljin) L.Martins (Martins 2006). It has been reported that *Klasea* contains 15 species in Turkey (Davis & Kupicha 1975; Martins 2006; Dogan *et al.* 2015). Five of these species are endemic to Turkey, resulting in an endemism ratio of 33.3%. The genus includes unarmed perennial herbs with involucre bracts mostly lacking apical appendages, tubular florets, and glabrous achenes, and a simple, seriate pappus composed of free, long bristles (Martins 2006; Susanna & Garcia-Jacas 2007).

Continuing my taxonomic study of the names in *Klasea* (Ranjbar *et al.* 2011, 2012, 2015; Ranjbar & Negaresh 2014; Negaresh 2023), I realized the necessity to lectotypify two species endemic to Turkey, i.e., *K. aznavouriana* (Bornm.) Greuter & Wagenitz and *K. bornmuelleri* (Azn.) Greuter & Wagenitz, because no specific herbarium sheet was cited as holotype in their protologues and the taxa were also not lectotypified earlier (Davis & Kupicha 1975). Following a thorough examination of the literature and of the type material, lectotypes are designated here for these taxa.

LECTOTYPIFICATIONS

Family ASTERACEAE Bercht. & J.Presl
Genus *Klasea* Cass.

Klasea aznavouriana (Bornm.) Greuter & Wagenitz
(Fig. 1)

Willdenowia 33: 58 (Greuter 2003). — Basionym: *Serratula aznavouriana* Bornm., *Bulletin de l'Herbier Boissier, sér. 2*, 6: 233 (Bornmüller 1906).

LECTOTYPE. — Türkiye • Anatolia bor. Prov. Pontus, in monte Tavschan-dagh [Tavşan Dağı] prope Mersivan [Merzifon]; 1904/1905; *J.J.Manissadjian s.n.*; lectotype (designated here): B[B100277137]! (Fig. 1) • same data; isolecotype: B[B100277136, B100277138]!, E[E00083602]!, G[G00012010, G00012011, G00012012, G00012014]!.

REMARKS

Bornmüller (1906) indicated the type of *Serratula aznavouriana* (*Klasea aznavouriana*) as 'Anatolia bor. Prov. Pontus, in monte Tavschan-dagh prope Mersivan [Merzifon], 1904/1905, *Manissadjian*'. Pertaining to the type specification provided in the protologue, eight duplicates

specimens of *Manissadjian s.n.* were traced (B100277136, B100277137, B100277138, E00083602, G00012010, G00012011, G00012012, G00012014). According to McNeill (2014), the existence of a holotype cannot be considered before 1990 unless one particular herbarium was indicated in the protologue (and only one specimen of the gathering was deposited there) or if it was made clear that only a single specimen of the gathering existed. Because there was more than one specimen for this species housed in more than one institution, they are duplicates. Based on Art. 40.2 Note 1 (Turland *et al.* 2018) these must all be treated as syntypes. The sheet B100277137 is selected as the lectotype here because it contains leaves, flowers, and capitula that are better developed than in the other duplicates, and the characters of the specimen agree with the protologue.

Klasea bornmuelleri (Azn.) Greuter & Wagenitz
(Fig. 2)

Willdenowia 33: 58 (Greuter 2003). — Basionym: *Serratula bornmuelleri* Azn., *Repert. Spec. Nov. Regni Veg.* 11: 397 (Aznavour 1912). *Schumeria bornmuelleri* (Azn.) Iljin, *Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.S.R.* 20: 364 (Iljin 1960), *comb. inval.*

LECTOTYPE. — Türkiye • [Malatya], collines au-dessus de Dérindeh [Darende]; 14.VII.1906; *G.Post & B.Post 30*; lectotype (designated here): G[G00012017]! (Fig. 2) • same data; isolecotype: B[B100277131]!, G[G00012016]!.

REMARKS

Aznavour (1912) described *Serratula bornmuelleri* (*Klasea bornmuelleri*) based on collections of *G.Post & B.Post 30* from Dérindeh, but did not designate a holotype nor did mention the name of the herbarium where the specimens were housed. Three specimens of *K. bornmuelleri* collected by *G.Post & B.Post* from Dérindeh were found. Based on Art. 40.2, Note 1 (Turland *et al.* 2018), these must all be treated as syntypes. Of these, the sheet G00012017 is better preserved and more complete than the other specimens, and best represents the species description given in the protologue; hence, it is designated here as the lectotype.

Acknowledgements

I am indebted to the personnel of the following herbaria: B, E, G, and JE, for their contribution during the revision of material and for providing the images of types. I would also like to thank the Agricultural Sciences and Natural Resources University of Khuzestan (project no. 1400/19) for financial support. The referees of the article, Prof. Ergin Hamzaoglu (Gazi University, Ankara, Türkiye), Dr. Zohreh Yousefi (Ataturk Universitesi, Erzurum Türkiye), Dr. Mina Khorasani (Farhangian University of Tehran, Tehran, Iran) and Thierry Deroin (Muséum national d'Histoire naturelle, Paris) are also thanked for their remarks on a previous version of the article.



FIG. 1. — Lectotype of *Klasea aznavouriana* (Borrm.) Greuter & Wagenitz, Manissadjian s.n. (B100277137).

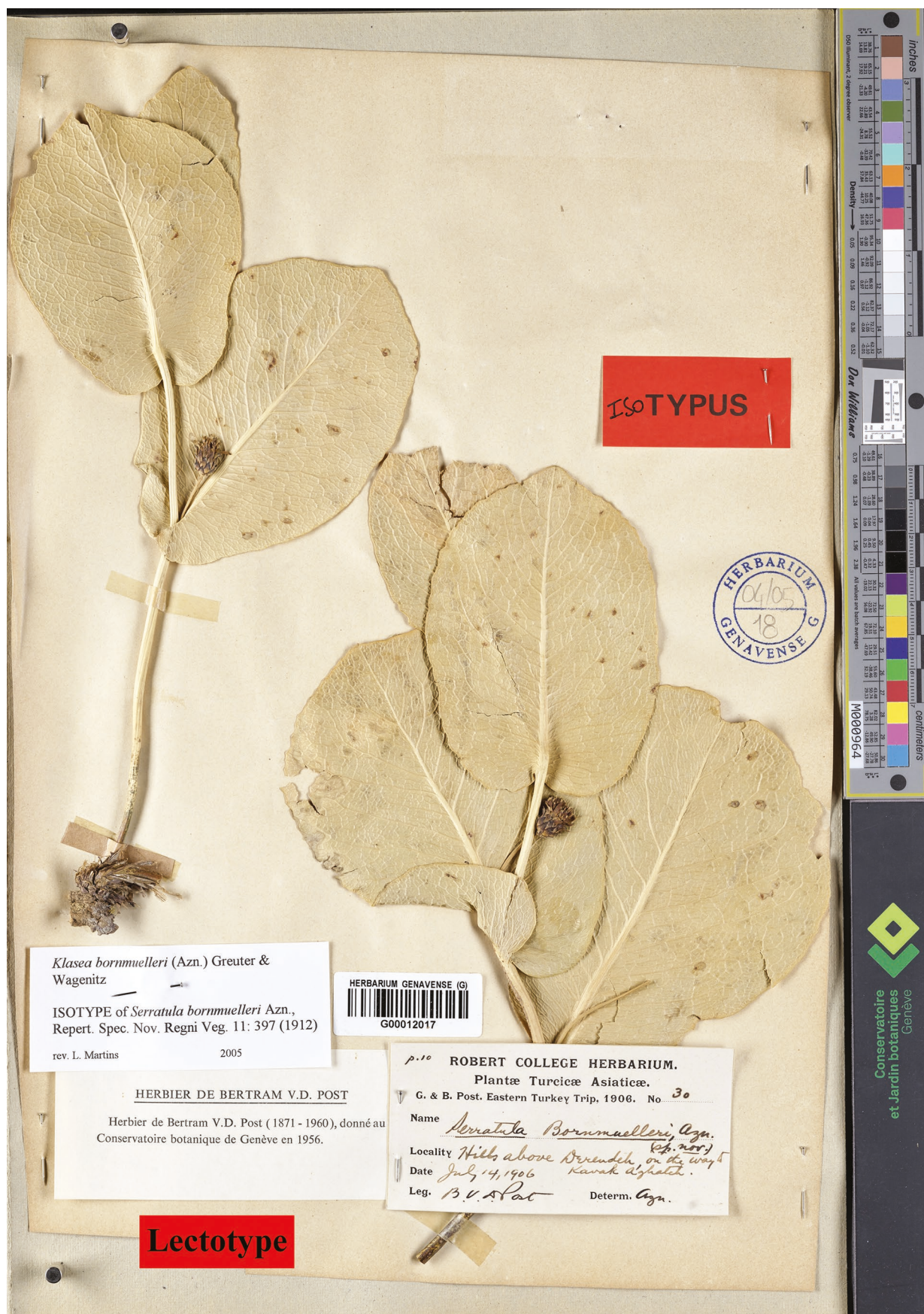


Fig. 2. — Lectotype of *Klasea bornmuelleri* (Azn.) Greuter & Wagenitz, G.Post & B.Post 30 (G00012017).

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Submitted on 8 April 2025;
accepted on 26 May 2025;
published on 27 January 2026.