



Typification of the name *Eryngium* ×*chevalieri* (Apiaceae—Saniculoideae)

P. PABLO FERRER-GALLEGO^{1,2}

¹*Servicio de Vida Silvestre y Red Natura 2000, Centro para la Investigación y la Experimentación Forestal (CIEF), Generalitat Valenciana, Avda. Comarques del País Valencià 114, E-46930 Quart de Poblet, Valencia, Spain.*

²flora.cief@gva.es; <https://orcid.org/0000-0001-7595-9302>

Natural hybrids are rare in the *Apiaceae* Lindl. and also, in the genus *Eryngium* Linnaeus (1753: 233). Most of the natural hybrids of *Apiaceae* are found growing between the parent species (*inter parentes*) and not far removed from them, or are garden taxa known exclusively from cultivation (Reduron 2007, Wörz 2011).

Eryngium ×*chevalieri* is a nothotaxon described by Sennen (1902) ($2n = 15$, see Perdigó-Arisó & Llauradó-Miravall 1984), intermediate between the parents: *E. bourgatii* Gouan (1773: 7) ($2n = 14$, see Perdigó-Arisó & Llauradó-Miravall 1985, Nieto-Feliner 2003) and *E. campestre* Linnaeus (1753: 233) ($2n = 16$, see Perdigó-Arisó & Llauradó-Miravall 1985, Nieto-Feliner 2003). This hybrid is found in the contact zone of the parent species, in Pyrenees (see Sennen 1902, 1914, Rouy 1927, Fournier 1937, Vigo 1964, Baudière *et al.* 1978, Bolòs & Vigo 1989). *Eryngium* ×*chevalieri* is closer to *E. campestre*, but variable in the shape of the umbels, the leaves, and many other characters (Wörz 2011). The pollen is normal, but most of the anthers are aborted and the fruits are sterile (Molinas & Perdigo-Ariso 1981).

Perdigó-Arisó & Llauradó-Miravall (1984: 192) mentioned that “damos el lectotypus, que es el n° 2678 del herbario Sennen in BC (fig. 2). Este ejemplar procede también de la Cerdaña, Valle de Lló, aunque fue recolectado por Sennen en 1916. El mismo indica que la primera vez que encontró esta planta solo pudo recoger de ella unos 10 pies, que probablemente se han perdido dado que no se hallan en ninguno de los herbarios revisados” [we give the lectotypus, which is no. 2678 from the Sennen herbarium at BC (fig. 2). This specimen comes from Cerdanya, Valle de Lló, although it was collected by Sennen in 1916. He indicates that the first time he found this plant he was only able to collect about 10 individuals of it, which have probably been lost since they are not found in any of the herbaria consulted]. The specimen at BC-Sennen, with exsiccatum number n° 2678 Plantes d’Espagne—F. Sennen, has some duplicates (e.g., MA barcode MA-01-00085016, P barcode P04345702).

However, the “lectotypification” of Perdigó-Arisó & Llauradó-Miravall (1984: 192) is ineffective because the specimen indicated as “lectotype” was collected in 1916 well after the publication of the protologue (in 1902, see below) and therefore this material cannot be treated as original material for the name *Eryngium* ×*chevalieri* (Art. 9.3 and 9.4(a) of the International Code of Nomenclature, Turland *et al.* 2018).

On the other hand, Ibáñez *et al.* (2004) mentioned a specimen preserved at BC as “syntypus”. The sheet bears a label annotated as: “PLANTES D’ESPAGNE—F. SENNEN / N° 1690 / × *Eryngium chevalieri* Sennen / *Eryngium bourgatii* × *campestre* ej. / Catalogne: Pyrénées à Montgrony / prairies de Mayans, 1.500 m. / Inter parentes / 1913-25-VIII / 1914-10-VII» [manuscrit Sennen] (BC—Herbari de la Institució Catalana d’Història Natural). These authors consider that the protologue of *E. ×chevalieri* was published in 1914 (in Bull. Acad. Int. Géogr. Bot. 24: 240) instead in 1902 (in Bull. Soc. Bot. France 49: 375). Therefore, this mentioned specimen at BC cannot be treated as a syntype.

In conclusion, the name *Eryngium* ×*chevalieri* appears to be as yet untypified (Reduron 2007, Wörz 2011) and is investigated here. This paper proposes the lectotypification of *Eryngium* ×*chevalieri* based on the study of the protologue and consultation of original material. Type designation was based on consultation of original elements (herbarium sheets and illustration). Herbaria are referred to by their acronyms following Thiers (2023 [continuously updated]).

Typification of the name

Sennen (1902: 375) described *Eryngium* ×*chevalieri* providing a complete diagnosis and description: “ERYNGIUM CHEVALIERI Sennen (*E. Bourgati* × *campestre*) Senn. Tige robuste, comme dans le *campestre*, moins rameuse et moins multiflore, mais plus rameuse et plus multiflore que dans le *Bourgati*. Rameaux, dressés à angles aigus et non divariqués. Feuilles du *campestre*, à pétiole auriculé-épineux. Fleurs en têtes oblongues. Involucre à 8–10 folioles (le *campestre* en a

4–6 ; le *Bourgati*, 10–12), entières ou dentées, entourées de paillettes épineuses longues : une quinzaine de tiges, à côté du *campestre* et non loin du *Bourgati*”, followed by the provenance: “Habit.—Cerdagne française à Llo (où nous avons été gracieusement hospitalisés par M. l’abbé Villa, cure), vallou d’un affluent de la Sègre rive droite.”. The protologue also includes a comment: “Je crois bon de faire entrer dans cette Note la description d’une Ombellifère hybride du genre *Eryngium*, la première, croyons-nous, qui ait été observée en France. Cet hybride, récolté en Cerdagne, en compagnie de M. Jh Chevalier, inspecteur des chemins de fer de l’Ouest et mon excellent ami, présente un mélange des caractères des *E. campestre* et *Bourgati*, comme va le montrer la description suivante :”.

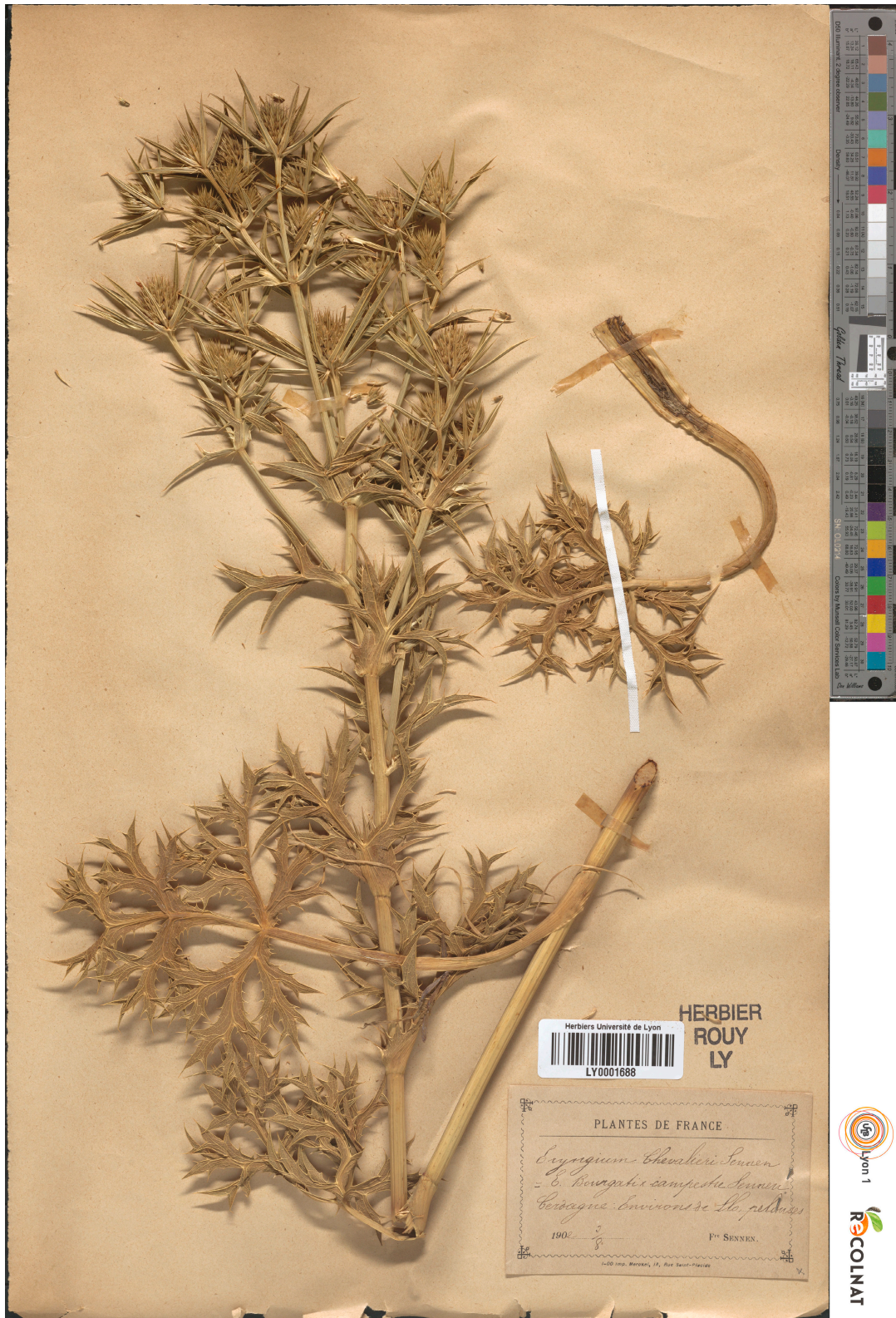


FIGURE 1. Lectotype of *Eryngium* \times *chevalieri* Sennen, LY (barcode LY0001688). Photograph courtesy of the herbarium LY, reproduced with permission.

I have been able to locate original material of *Eryngium ×chevalieri* in several herbaria consulted (e.g., barcodes P04345693, LY0001688, MA-01-00085018). These all sheets contain an original label handwritten by Sennen, annotated as: “Plantes de France / Eryngium Chevalieri Sennen / = E. Bourgati × campestre Sennen / Cerdagne : Environs de Llo, pelouses / 1902 / 3–8 / F^{re} Sennen”. Wörz (2011) mentioned that in the herbarium BC and MPU there are duplicate specimens of this hybrid collected by Sennen in “[France] “Environs de Llo, Pelouses, 1902 3/8”, as “A possible lectotype specimen would be: [France] “Environs de Llo, Pelouses, 1902 3/8, Fre. Sennen (BC, MPU, P)”, provided its collections really predates the publication of the protologue”. However, at MPU is only preserved a specimen of *E. ×chevalieri* collected by Sennen in “Vallée de Valcebollère” in 1920 (with barcode MPU1274310; image available at <https://explore.recolnat.org/search/botanique/institutioncode=um&simplequery=MPU1274310>) (Caroline Loup, pers. comm.). On the other hand, at BC there are two specimens of *E. bourgatii* (BC-988471: as *Eryngium bourgati* var. *pyrenaicum* Lange. Cerdagne: Llo, pelouses, 3-VIII-1902, Sennen; BC-988472: as *Eryngium bourgati* var. *hispanicum* Lange. Cerdagne: Llo, pelouses, 3-VIII-1902, Sennen) and two specimens of *E. ×chevalieri* but collected in 1916 and 1920 (BC-988473: as *Eryngium ×chevalieri* Sennen. Vallée de Valcebollère, bord du chemin, 24-VII-1920, Sennen [PLANTES DE CERDAGNE]; BC-988474: *Eryngium ×chevalieri* Sennen. Cerdagne: Val de Llo à Castellvidre, 22-VIII-1916 [PLANTES D’ESPAGNE—F. SENNEN, 2678]) (Neus Ibáñez, pers. comm.).

In conclusion, among the mentioned specimens collected by Sennen in 1902 in “Cerdagne, Environs de Llo”, I designate as the lectotype of the name *Eryngium ×chevalieri* the specimen at LY (with barcode LY0001688) (Fig. 1). The sheet contains a plant of *Eryngium ×chevalieri* very complete and in good state of preservation, with leaves and flowers. The specimen is clearly identifiable as Sennen’s *Eryngium ×chevalieri* and matches with the current application of the name (see e.g., Perdigo-Arisó & Llauredó-Miravall 1984, Bolòs & Vigo 1989, Nieto-Feliner 2003, Wörz 2011).

Eryngium ×chevalieri Sennen (1902: 375)

Lectotype (designated here):—[FRANCE], Cerdagne, Environs de Llo, Pelouses, 3-VIII-1902, *Fre. Sennen* (LY barcode LY0001688), see Fig. 1. Isolectotypes: MA (barcode MA-01-00085018) and P (barcode P04345693).

Acknowledgments

I would like to express my great appreciation to Eva García and Leopoldo Medina (MA), Neus Ibáñez (BC), Caroline Loup (MPU), and Mélanie Thiebaut (LY) for their help in the study of herbarium sheets.

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