

# The Nomenclatural Types of some *Eryngium* taxa (*Apiaceae-Saniculoideae*) from the Balkan Peninsula

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Received: February 09, 2010 ▷ Accepted: February 25, 2010

**Abstract.** Seven lectotypifications of *Eryngium* (*Apiaceae-Saniculoideae*) in the Balkan Peninsula are presented, viz., *E. amethystinum* var. *transiens*, *E. creticum*, *E. glomeratum*, *E. palmatum*, *E. serbicum*, *E. ternatum*, and *E. wiegandii*. The holotype of *E. multifidum* is identified and the new combination *E. amethystinum* var. *transiens* made.

**Key words:** *Apiaceae*, Balkan flora, *Eryngium*, lectotypification

## Introduction

The descriptions and type collections of several species of *Eryngium* reflect a period of intense botanical activity in the Balkan Peninsula. Early explorers such as Tournefort, Heldreich and Smith came from abroad, i.e., from western Europe, and many descriptions have been published by Lamarck or Boissier. From the 19<sup>th</sup> century onwards, botanists from within the Balkans travelled, collected and described many new taxa, among them Pančić, Adamović and Bierbach.

*Eryngium* is a genus of ca. 250 species worldwide, 11 of which occur in the Balkan Peninsula. Their distribution was summarized in an earlier paper by Wörz (2006). In the present article, seven lectotypifications are presented in order to clarify and stabilize the names. The Linnean names of *E. amethystinum* L., *E. alpinum* L., *E. campestre* L. and *E. maritimum* L. are excluded because they are widely distributed taxa and their typifications have already been dealt with in the excellent volume of Jarvis (2007), and for *E. alpinum*, implemented by Reduron in Wörz (1999) and Reduron (2007).

## Material and methods

The lectotypes result from intensive study in several herbaria (ANK, B, BM, BRI, C, E, G, GAZI, GOE, HUB, K, JE, LD, LE, LINN, M, MA, MARSSJ, MPU, MW, OXF, P, PR, RB, UC, US, W, WU) and are selected from original specimens seen by the nomenclatural authors, wherever possible bearing their own handwriting. Images of *E. palmatum* and *E. wiegandii* were generously made available by the herbaria at BEOU and WU. The "automatic" holotype of *E. multifidum* Sibth. & Sm. was found as the only original material at OXF. "/" in the citation of type specimens indicates the beginning of a "new line".

## Types and lectotypifications

### *Eryngium amethystinum* L.

In the Balkan Peninsula, other than *E. amethystinum* s.str., *E. amethystinum* is represented by two subtaxa, which used to be considered as varieties (Boissier) or species (*E. multifidum* Sibth. & Sm.). The type variety is a more northerly taxon reach-

ing southwards to the northern Greek border (Wörz 2006: 223). *Eryngium amethystinum* var. *tenuifolium* Boiss. & Heldr. (= *E. multifidum*) is by far the most common taxon in Greece. Intermediates are frequently met with in the overlapping area of var. *tenuifolium* and var. *amethystinum* and were described as *E. multifidum* var. *transiens* Halácsy. These intermediates and their small morphological differences (usually narrower leaf segments and mostly less intense blue colour) are inadequate to justify species rank.

As *E. amethystinum* L. is the valid name for the species, var. *transiens* needs a new combination. The types of the varieties and their synonyms are presented below:

***Eryngium amethystinum* var. *tenuifolium*** Boiss. & Heldr. in Boiss., Fl. Orient. 2: 826 (1872).

**Type material:** "in regione media et superiori Olympi Thessali, Parnassi et montis Kyllenes (HELDRL!)[BM, E, G-BOISS, K, STU, W], in Regione alpina Taygeti (HELDRL!) [BM, E, G-BOISS, W]. Fl. Aug."

**Lectotype** (designated by Wörz 2004): "Herb. De Heldreich/376 *Eryngium multifidum* Sibth!!/In reg. sylv. m. Olympi Thessaliae pr. coenob. Hag. Dionysii, 31 Jul 1851" (**Lectotype:** G-BOISS; **isolectotypes:** BM, E, K, LD, STU).

**Synonym** (of *E. amethystinum* var. *tenuifolium*): *Eryngium multifidum* Sibth. & Sm., Fl. Graec. Prodr. 1: 175 (1806).

**Holotype:** "*Eryngium multifidum*" (OXF, Herb. J. Sibthorp).

This holotype was found in the Sibthorp herbarium at OXF. No locality is mentioned. It bears the handwriting of J.E. Smith (see Burdet 1978), who wrote most of the text in the Florae Graecae Prodomus. In LINN-Smith, no specimen of this taxon was found.

*Eryngium amethystinum* var. *tenuifolium* occurs from the western Republic of Macedonia southwards through the Greek mainland to the Peloponnese, but is notably absent from the islands.

***Eryngium amethystinum* var. *transiens*** (Halácsy) Wörz, **comb. nov.**

**Basionym:** *Eryngium multifidum* var. *transiens* Halácsy, Consp. Fl. Graec. 1: 616 (1901).

**Type material:** "Exsicc.: Sint. et Bornm. it. turc. n. 1246 et 1247; Sint. it. thessal. n. 1424"

**Lectotype** (designated here): "P. Sintenis et J. Bornmüller / Iter turcicum 1891 / No. 1247 / *Eryngium multifidum* / Macedonia/Lithochoris, in herbis / 17.08., det. Dr. E. v. Halácsy" (**Lectotype:** WU 0022718 [Herb. Halácsy, see <http://herbarium.univie.ac.at/database>], **Isolectotypes:** B, BM, K).

This taxon occurs in northern Greece and in the Republic of Macedonia.

***Eryngium creticum*** Lam., Encycl. Méth. Bot. 4(2): 754 (1798).

**Lectotype** (designated here): "*Eryngium creticum* / erectum, fol. multifido, / caule et ramis amethystinis, / Cov. J.R.H. 23. [New label, handwriting Lamarck:] *Eryngium creticum* Lam. dict., [further label with unknown handwriting:] ? *Eryngium tricuspdatum* L." (**Lectotype:** P-JU no. 10439).

Lamarck refers in his descriptions to some specimens he had seen in Jussieu's herbarium. These specimens are still extant in P-JU (no. 10439 and 10439 + 1). Sheet no. 10439 bears a label with Lamarck's handwriting (see Burdet 1976) attached to the right-hand specimen on the sheet; this was selected as the lectotype. The first reference to this species is probably in Tournefort (1703).

*Eryngium creticum* is an Eastern Mediterranean element growing in Greece, Turkey, Lebanon, Israel, extending eastwards to Iraq. It is a lowland species occurring mostly in man-made habitats.

***Eryngium glomeratum*** Lam., Encycl. Méth. Bot. 4(2): 755 (1798).

**Lectotype** (designated here): "*Eryngium* / foliis laciniatis, capitulis florum / exiguis et dense congestis, / Ex Insula Anapho" (**Lecto-:** P-TRF no. 2042, **isolectotype:** P).

Lamarck indicates Crete as the country of origin for his new species and refers to Tournefort (1703). However, Tournefort himself did not indicate a place of origin for this plant, and in Tournefort's herbarium, the only extant specimens of *E. glomeratum* are from the island of Anafi (Insula Anapho) which is in the south Aegean region east of Santorin. Therefore, Crete as the place of origin indicated by Lamarck is probably erroneous.

*Eryngium glomeratum* occurs in the southeast Aegean area, south Anatolia, Syria, Lebanon, Palestine, and Israel with a disjunct distribution in Tunisia.

*Eryngium palmatum* Pančić & Vis. in Mem. Reale Ist. Veneto Sci. 15: 20 (1870).

**Type material:** "Hab. in saxosis calcareis prope Ravanica, Sv. Petka in circ. Cupria, ad Banja circ. Aleksinac, Uljarevo circ. Kragujevac, et mont. Ogradjenak Serbiae meridionalis".

**Lectotype** (designated here): "*Eryngium tricuspidatum* L. / M. schistos argilloso Ramaća Distric- / tuo Gruženvis Jul. 1848. Albique. / Videtur pro varia locis variare dentib. pale- / arum 3-5/l. Pančić" (**Lectotype:** W).

The localities of the protologue as cited above are literally the same as under *E. tricuspidatum* L. in Pančić (1859). Therefore, although the protologue was published in 1870, eleven years later, the relevant material must date before 1859. From the material in BEOU, W, WU and other herbaria, only two specimens qualify for the relevant period of time: one is at BEOU and labelled with Pančić's handwriting and with "Ramaćka u Okr[ug] Kruizak" as the locality. This place is not cited in the protologue and it is not identical with the place called Ravanica. A second specimen from the same locality exists at W; this bears the locality "Ramaća districto Gruženvis", the latter probably referring to Gruža which is halfway between Ramaća and Ravanica.

These facts are difficult to assess considering the evidence today. In any case, the places of origin are problematic: not one of the localities mentioned in the protologue is documented by a specimen in the herbaria, and only the two specimens listed above are suitable for typification by virtue of their dates of collection. Therefore, one of these specimens must be selected as a lectotype.

In addition to the difficulties in deciphering the handwriting on the label of the BEOU specimen, it is considered reasonable to select the first collection of the original material, which bears the handwriting and signature of Pančić. This is the type specimen at W.

*Eryngium palmatum* is a Balkan endemic distributed in Croatia, Serbia, Montenegro, Albania and southwards to north-central Greece.

*Eryngium serbicum* Pančić in Verh. Zool.-Bot. Vereins Wien 6: 520 (1856).

**Type material:** "Steinige, buschige Abhänge bei Dobrača im Kragujevacer – am Fuße des M. Stol im Čačaker Kr. August. als *E. digitatum* an Freunde verschickt" (i.e., sub *E. digitatum*).

**Lectotype** (designated here): "*Eryngium digitatum* nova spec.! / inter frutices collium Dobrača C. Kragujevac. Jul. 1850. C. Cardio candicante, Peucedano offic., Silao pratensi etc. / l. Pančić" (**Lecto-:** W ex Herb. L. Keller).

**Syntype:** "*Eryngium serbicum* Panč / in declivibus herbis M. Stol / Substr. Serpent. Aug. / l. Pančić" (W Herb. Khek, K, WU).

Unfortunately, no type specimen dating back to the relevant period is extant in Pančić's own herbarium in Beograd (BEOU). Therefore, a specimen from W with Pančić's handwriting was selected as lectotype. It is one of the few specimens with a label bearing the unpublished name *E. digitatum* mentioned in the protologue and the collecting date 1850 well before the publication of the original description.

*Erysimum serbicum* is a Balkan endemic occurring in Serbia, Albania, and Macedonia. Most populations occur in serpentine habitats. The species belongs to sect. *Palmito* H. Wolff, which is characterized by leaf segments having parallel veins thus resembling grass leaves but is not related to the South American subg. *Monocotylloidea* Wörz.

*Eryngium ternatum* Poir., Encycl. Méth. Bot., Suppl. 4: 295 (1816).

**Lectotype** (designated here): [Icon] Alpinus, P. (1637): De Plantis Exoticis. Vol. 2, tab. p. 152.

Poiret refers in his protologue exclusively to earlier descriptions of this species. One of them is the volume of Prosperus Alpinus, which he cites again at the end of the protologue as "Prosp. Alp. Icon.". The clear and unambiguous illustration there was obviously his main source and is therefore selected as a lectotype here.

This species is endemic to Crete, where it occurs on limestone rock walls in narrow gorges. It has grass-like leaf segments as in *E. serbicum* and belongs to the same section, sect. *Palmito* H. Wolff.

*Eryngium wiegandii* Adamović in Oesterr. Bot. Z. 55: 178 (1905).

**Type material:** "Macedonia: In saxosis praeruptis fluminis Treska ad Skoplje detexit D. Bierbach".

**Lectotype** (designated here): "in praeruptis ad Treska, VII. 04, leg. Bierbach" (**Lecto-:** WU-Halácsy-Graecum no. 0043415 [see <http://herbarium.univie.ac.at/database/>], **Isolectotypes:** BM, M).

This species was named after E. Wiegand, an engineer and amateur botanist, who presented flowering specimens to L. Adamović. They, however, were not found in any herbaria. All specimens from the locus classicus at W were collected in July 1905, a few months after the publication of the protologue (May 1905). One collection represented by a single specimen at WU predates the protologue and the label bears the handwriting of Adamović. This specimen is therefore selected as lectotype.

*Eryngium wiegandii* is an endemic of the Balkan Peninsula, occurring in the Republic of Macedonia and on Mt Olympus in north-central Greece.

**Acknowledgements.** I thank Kit Tan for her help with the Pančić herbarium, Snezana Vukojičić (BEOU) and W. Till (WU) for the digital images, the curators of the herbaria mentioned in the text for their help during my visits, and the anonymous reviewers for their valuable comments.

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