

TYPIFICATION OF SOME SPECIFIC AND INFRASPECIFIC
NAMES IN *EUPHORBIA* L. (*EUPHORBIACEAE*)ТИПИФИКАЦИЯ НЕКОТОРЫХ ВИДОВЫХ И
ВНУТРИВИДОВЫХ НАЗВАНИЙ РОДА *EUPHORBIA* L.
(*EUPHORBIACEAE*)

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Lectotypes and neotypes have been selected for 37 names in *Euphorbia* L., including two Linnaean ones: *E. lathyris* L. and *E. paralias* L. Special attention was paid to *E. virgata* Waldst. et Kit. var. *orientalis* Boiss., for which designation of a new lectotype is justified.

Key words: *Euphorbia*, lectotypes, neotypes.

The aim of this article is to provide the designations of lectotypes and neotypes for several specific and infraspecific names in *Euphorbia* L., mostly those of taxa occurring in Europe and Southwest Asia, especially in the Caucasus.

Designation of lectotypes and neotypes was made during the work in several Herbaria (B, ERE, G, KW, LE, LYJB, P, TBM, US, W), as well as through using the resources of JSTOR Global Plants (<http://plants.jstor.org>), Virtual Herbaria (<http://herbarium.univie.ac.at/database/index.php>) and other facilities providing online access to holdings of various Herbaria.

For every name the nomenclature citation, synonymy and type provenance (if necessary) and lecto- or neotype designation are provided. If the original text of the specimen label is written in the Cyrillic script, it appears both in its original form and in English translation.

Euphorbia acuminata Lam. 1788, Encycl. 2: 427.

Type provenance: «Cette plante croît dans les champs de la Suisse méridionale».

Lectotype (designated here): [Switzerland?] «Herb. Lamarck» (P 00381891!).

Euphorbia amplexicaulis Ledeb. 1850, Fl. Ross. 3, 2: 567, nom. illeg., non Hook. f. 1847. ≡ *Tithymalus amplexicaulis* Klotzsch et Garcke, 1860, Abh. Königl. Akad. Wiss. Berlin, 1859: 80.

Type provenance: «in provinci[i]s Caucasicis [provinc. Karabagh! (Hohenack. pl. exs.)]».

Lectotype (designated here): «Schuscha, herb. Ledebour, № 830.35» (LE!).

Euphorbia angulata Jacq. 1788, Collectanea, 2: 309.

Type provenance: Austria.

Lectotype (designated here): [Austria] «Hort. Bot. Vindob., Herb. Jacq.» (W!).

Euphorbia artvinensis Bornm. et Woronow, 1912, Vestn. Tiflissk. Bot. Sada, 26: 3.

Lectotype (designated here): [Turkey] «Артвинский округ, доли на Арганух-су близ урочища Горгота-ханч, 12 VII 1911, Ю. Воронов, № 5681 [Artvin district, valley Arganukh-su near Gorgota-khanch terrain feature, 12 VII 1911, Woronow 5681]» (TBM 28701!).

Euphorbia arvalis Boiss. et Heldr. 1853, in Boiss., Diagn. Pl. Or., sér. 1, 12: 116.

Type provenance: «in arvis Pisidiae inter Isbarta et Egirdir (Heldr.)».

Lectotype (designated here): [Turkey] «Plaines d'Isbartha — a 2 lieuer d'Isbartha sur la route d'Egirdir, 31 V 1845, [Heldreich] 769» (G! isolectotypes — US 01050201, P 0552400, GOET 03704).

Euphorbia aspera M. Bieb. var. *serrata* Boiss. 1862, in DC., Prodr. 15, 2: 124.

Type provenance: «In Imeretia (Eichwald in h. Ledeb.)».

Lectotype (designated here): [Georgia] «Imeretien, Eichwald s. n. (Herb. Ledebour)» (LE!).

Euphorbia baxanica Galushko, 1970, Novosti Sist. Vyssh. Rast. 6: 216.

Neotype (designated here): [Russia] «Кабардино-Балкария, Баксан, р. Гижгит, в 4 км выше устья, на скалах, 5 VI 1960, А. Галушко [Kabardino-Balkaria, Gizhgит River, 4 km above its mouth, on rocks, 5 VI 1960, A. Galushko]» (LE!).

According to Galushko (1970), the type of *E. baxanica* («Caucasus Magnus, Baxan [Baksan], circa Bylym, 18 VI 1964, A. Galushko») is deposited in LE. However, I failed to find this specimen there. Instead, another specimen collected by Galushko has been kept for a long time in the collection of types in the Caucasian section of LE (quite probably, it has been donated by Galushko). This specimen is selected here as the neotype.

Euphorbia borodinii Sambuk, 1928, Izv. Akad. Nauk SSSR, ser. 7: 45.

Type provenance: «Prov. Archangelsk, distr. Petschora, Ustj-Cilma, prata inundata».

Lectotype (designated here): [Russia] «Архангельская обл., Печорский у., с. Усть-Цильма, луга в пойме Печоры против станции; 3-я гряда, низкий уровень, 31 VII 1926, Ф. Самбук [Arkhangelsk Region, Pechora District, Ust-Tsilma village, meadows in the Pechora River floodplain across the station, 3rd ridge, lower level, 31 VII 1926, F. Sambuk]» (LE!).

Euphorbia borszczowii Prokh. 1949, in Fl. URSS, 14: 742.

Type provenance: «Distr. Novouzensk, 1859, Borszczow».

Lectotype (designated here): [Russia] «In districtu Nowo-Usen' gubernii Samara, 1858, G. Borszczow» (LE!).

Prokhanov (1949) did not mention the institution where the type is deposited. The difference between the text in the protologue and the specimen label is likely due to a typeset error.

Euphorbia condensata M. Bieb. 1819, Fl. Taur.-Cauc. 3: 322.

Type provenance: «in Iberia, circa Tiflin[s], D. Wilhelms».

Lectotype (designated here): [Georgia] «Iberia, circa Tiflis, comm. Fischer, cum Wilhelms» (LE!).

Euphorbia damascena Boiss. 1853, Diagn. Pl. Or., sér. 1, 12: 113.

Type provenance: «in collibus aridissimis ad occasum urbis Damasci sitis».

Lectotype (designated here): «Syria, Damasci collis, E. Boissier, V–VII 1846» (G-BOIS!).

Euphorbia falcata L. var. *ecornuta* Boiss. 1879, Fl. Orient. 4: 1111.

Type provenance: «in calcareis Gebel Muhassan prope Aleppo Syria et in deserto fluvii Chabur Mesopotamiae (Hauskn.!)».

Lectotype (designated here): [Syria] «In deserto fl. Chabur, V 1867, Haussknecht, № 863» (G-BOIS!).

Euphorbia falcata var. *macrostegia* Bornm. 1908, Mitth. Thüring. Bot. Vereins, n. f., 24: 111.

Type provenance: «Sinus Smirnaeus, in arenosis ad rivulos in valle supra Ildja (aquas Agamemnonis) copiose (29 V legi: no. 9961). — In monte Takhtali-dagh (26 V legi: no. 9960). — Hue pertinet quoque planta a me in Phrygiae monte Sultan-dagh 28 VI 1899 lecta exsicc. no. 5550».

Lectotype (designated here): [Turkey] «Lydia: Sinus Smyrnaeus, Ildja, ad rivulum, 29 V 1906, J. Bornmüller, № 9961» (B!, isolectotypes — LE!).

Euphorbia firma Ledeb. 1850, Fl. Ross. 3: 563.

Type provenance: «in Sibiria uralensi ad litt. orientali m. Caspi pr. Djukkaragan (Eichw. pl. exc.)».

Lectotype (designated here): [Kazakhstan] «Eichwald, 447, Herb. Ledebour» (LE!).

Euphorbia fossulata Boiss. et Gaill. 1859, in Boiss., Diagn. Pl. Or., ser. 2, 4: 87.

Type provenance: «Hab. in lapidosis ad radices montis Gebel Khailoun prope Damascus cl. Dr Gaillardot».

Lectotype (designated here): [Syria] «Talus pierreux au jard Djebel Khailoun nord du Damascus, 12 IV 1856, C. Gaillardot, № 2220» (G-BOIS!, isolectotype — JE).

Euphorbia gerardiana Jacq. 1778, Fl. Austriac. 5: 17.

Type provenance: Austria.

Lectotype (designated here): [Austria] «Crescit in pratis Danubialibus passim et in locis arenosis hinc inde, N. J. Jacquin (herb. Jacquin, 0049519)» (W!).

Euphorbia ×goldei Prokh. 1949, in Fl. URSS, 14: 738 (pro sp.); Geltman, 2005, Novosti Sist. Vyssh. Rast. 37: 141 (pro nothosp. = *E. glareosa* Pall. ex M. Bieb. × *E. stepposa* Prokh.).

Lectotype (designated here): [Crimea] «Близ яйлы, у ресторана, 8 (21) VI 1904, К. Л. Гольде [near yayla, close to the restaurant, 8 (21) VI 1904, K. L. Golde, s. n.]» (LE!, isolectotype — LE).

There are 2 specimens labelled as «type» in LE, so selection of a lectotype was necessary.

Euphorbia iberica Boiss. var. *intermedia* Boiss. 1862, in DC., Prodr. 15, 2: 163. ≡ *E. intermedia* (Boiss.) Fisch. et C. A. Mey. ex Trautv. 1884, Trudy Imp. S.-Peterburgsk. Bot. Sada, 9, 1 (Incrum. Fl. Fanerogam. Ross. 3): 159.

Type provenance: «Ad pagum Chaschmi Caucasi (C. A. Meyer, Hohen.)».

Lectotype (designated here): «Caucasus, Hohenacker» (LE!).

The specimen designated here as the lectotype has the label «teste Boissier».

Euphorbia illirica Lam. 1788, Encycl. 2: 435.

Type provenance: «cette plante est cultivée au Jardin du Roi, & croit vraisemblablement dans la Dalmatie, la Sibérie etc.».

Lectotype (designated here): «Hort. Reg. et enc.» (P-LA!).

This name is proposed for rejection (Frajman, 2014).

Euphorbia lathyris L. 1753, Sp. Pl.: 457.

Type provenance: «in Gallia, Italia ad agrorum margines».

Lectotype (designated here): Herb. Linn. 630.32 (LINN!).

Euphorbia maleevii Tamamsch. 1944, Dokl. Akad. Nauk Armyanskoi SSR, 1, 1–2: 45.

Lectotype (designated here): [Armenia] «Distr. Akhty, prope pag. Solak, ad rip. dextr. fl. Zanga, in vallecul., schist. et sabulosis, 30 VIII 1942, S. Tamamschan» (ERE 29421).

In the original publication the year of the specimen collection is 1943, but it is an evident typeset error — other information coincides with that in the protologue.

Lectotype has been selected from 2 available syntypes.

Euphorbia mariae Tamamsch. 1944, Dokl. Akad. Nauk Armyanskoi SSR, 1, 1–2: 43.

Lectotype (designated here): [Azerbaijan] «Prope Nachičevan, in steppa, 6 VI 1929, A. Schelkovnikov, E. Kara-Murza» (ERE 8663!).

The lectotype has been selected from two available syntypes.

Euphorbia micrantha Stephan ex Willd. 1799, Sp. Pl. 2: 905.

Type provenance: «in Persia boreali».

Type: «Habitat in Persia, Stephan» (B, Herb. Willd. 09318).

Euphorbia muricata M. Bieb. var. *wilhelmsiana* K. Koch, 1849, Linnaea, 21: 725.

Type provenance: Not specified.

Lectotype (designated here): «Caucasus. Wilhelms, s. n.» (LE!).

Euphorbia pannonica Host, 1831, Fl. Austriac. 2: 566.

Type provenance: «In Hungaria and finitima Austria in pratis, campis, ad agrorum margines; in agro Vindobonensis copiose circa Lanzendorf, Himberg».

Lectotype (designated here): [Austria] «Schwechat, 1817, Host» (W 049517!).

Euphorbia paralias L. 1753, Sp. Pl.: 458.

Type provenance: «in Europae arena maritima».

Lectotype (designated here): Herb. Linn. 199.15 (S).

Euphorbia pyrenaica Jordan, 1846, Observ. Pl. Nouv. 3: 238.

Type provenance: «J'ai découvert cette espèce le 22 juillet 1838, à Athas dans la vallée d'Aspe (Basses-Pyrénées)...»

Lectotype (designated here): [France] «Pyr. occid., vallée d'Aspe, Athas, Jordan» (LYJB!).

Euphorbia schizoceras Boiss. 1844, Diagn. Pl. Or., sér. 1, 5: 54.

Type provenance: «in monte Gara Kurdistaniae, Kotschy».

Lectotype (designated here): [Iraq?] «Kurdistan, Berg Gara, 3 VIII [1841], Th. Kotschy, № 570» (G-BOIS!, isolectotypes — BM 000951553, G-DC!, LE!).

Euphorbia scripta Sommier et Levier, 1892, Trudy Imp. S.-Peterburgsk. Bot. Sada, 12(5): 159.

Type provenance: «in Svanetiae liberae jugo Utbiri, inter flumina Nakra et Nenskra».

Lectotype (designated here): [Georgia] «Svanetia libera, in jugo Utviri inter flumina Nakra et Nenskra, 2500 m, 19 VIII 1890, Sommier, Levier, № 1186» (FI — the sheet with species description in handwriting, isolectotype — FI).

Euphorbia seguieriana Necker var. *petrogena* Tamamsch. 1944, Dokl. Akad. Nauk Armyanskoi SSR, 1, 1–2: 46.

Lectotype (designated here): «Armenia, pr. et distr. Erivan, 1 VI 1922, S. Tamamschan» (ERE 8672!).

Tamamschan (1944) did not cite any specimens in the protologue, but mentioned that most of Armenian plants (except some collected near Lake Sevan) belonged to this variety. So, almost all specimens of *E. seguieriana* kept in ERE (were Tamamschan worked in 1932–1937 and 1941–1945: see Gabrielyan, Pimenov, 1987) and collected before 1944 could be regarded as components of the original material.

Euphorbia subtuberculata C. A. Mey. ex Boiss. 1862, in DC., Prodr. 15, 2: 118.

Type provenance: «In prov. Aderbidjan Persiae boreali ad Khoi juxtra vias (Szowits!)».

Lectotype (designated here): [Iran] «Rarior ad vias circa Khoi prov. Aderbaidzhan, 15 VI 1828, Szovits s. n.» (LE!).

Euphorbia talyshensis Boiss. et Buhse, 1860, Nouv. Mém. Soc. Nat. Moscou, 12: 196.

Type provenance: «Talyshgebirge bei Massula, April 1848».

Lectotype (designated here): «Iran, Massula, IV 1848, Buhse s. n.» (LE!, isolectotype — G-BOIS).

Euphorbia tanaïtica Pacz. 1891, Mat. Fl. Step. Donskoi Obl.: 78.

Type provenance: «In desertis Tanaicensibus pr. Kagalnickaja».

Lectotype (designated here): [Russia] «In steppis pr. stat. Kagalnickaja, Terra Cosacorum Tanaicens, 3 V 1889, I. Paczoski s. n.» (KW 022235!, isolectotype — LE!).

Euphorbia trigonocarpa Fisch. 1840 (publ. 1841), Index Sem. Hort. Bot. Petrop. 7: 48.

Type provenance: «in Imperio Ruthenico, sed loco ignoto».

Lectotype (designated here): «H[ortus] Petr[opolitanus], № 1904, 13 VI 1838 [anon.]» (LE!).

Euphorbia uralensis Fisch. ex Link, 1822, Enum. Hort. Berol. Alt. 2: 14.

Type provenance: «in montibus Uralensibus».

Lectotype (designated here): [Russia] «Ural, Helm, Herb. Fischer» (LE!).

Euphorbia virgata Waldst. et Kit. var. *orientalis* Boiss. 1862, in DC., Prodr. 15, 2: 160. ≡ *E. virgata* subsp. *orientalis* (Boiss.) Velen. 1891, Fl. Bulg.: 507. ≡ *Tithymalus boissierianus* Woronow, 1931, Sched. Herb. Fl. Cauc. 10, № 479. ≡ *Euphorbia boissieriana* (Woronow) Prokh. 1949, in Fl. URSS, 14: 445. ≡ *E. esula* subsp. *orientalis* (Boiss.) Molero et Rovira, 1992, Collect. Bot. 21: 163.

Type provenance: «In Anatolia bor. (Wiedem. in herb. Petr!), Armenia (Huet!), Rossia australi ad Wolgam (Becker!), Transcaucasia (Hohen!), Persia bor. (Bunge! Szovits!), Kurdistania (Kotschy n. 569 sub *E. esula*), Turcomania (Karelin!), Songaria (Schrenk!)».

Lectotype (designated here against the designation made by Molero, Rovira (1992: 163)): [Iran] «Ad margines hortorum circa Badalan distr. Khoi prov. Aderbeidzhan, 8 VI 1828, Szovits 399» (LE!).

Molero, Rovira (1992) made a very unfortunate type designation for this name which is in contradiction with Art. 9.12 of the *International Code of Nomenclature for Algae, Fungi and Plants* (McNeill et al., 2012).

Boissier (1862), when describing *E. virgata* var. *orientalis*, listed several specimens (syntypes) most of which are now available in G-BOIS, G-GEN or other Herbaria seen by Boissier at least partly (LE, P, etc.). Nevertheless Molero, Rovira (1992: 163) selected as a lectotype the specimen from G-DC which came from Geneva Botanical Garden where it was cultivated under the name *E. persica*. Although Boissier (1862) did cite the name *E. persica* Steven (which has never been effectively published) in the synonymy of *E. virgata* var. *orientalis*, this specimen was not listed in the protologue and cannot be considered a part of the original material; at the same time a number of syntypes and isosyntypes are available. Boissier's label «*E. virgata* var. *orientalis*» which is on Molero and Rovira's «lectotype» relates to the whole folder rather than to this particular sheet. Moreover, this specimen has comparatively wide elliptic leaves (and likely belongs to *E. iberica*) and sharply differs from the specimens cited in the protologue. Taking into account all these considerations, Molero and Rovira's lectotypification should be superseded, and a new lectotype designation for this name is made here.

Several authors accepting *E. boissieriana* (Prokhanov, 1949; Rechinger, Schiman-Czeika, 1964) believed that this name was published by Woronow (in Herbarium Flora Caucasi exsiccatae) as a new taxon *Tithymalus boissierianus* with a new type. However Woronow did not provide any description and simply proposed a new name based on *E. virgata* var. *orientalis* Boiss.

Tithymalus hypoleucus Prokh. 1933, Sist. Obzor Moloch. Sr. Azii: 199. ≡ *Euphorbia hypoleuca* (Prokh.) Rech. f. 1948, Ann. Naturhist. Mus. Wien, 56: 212.

Lectotype (designated here): «Turcomania, ad fl. Dajne-ssu, 30 VII 1898, D. Litwinow, № 1985» (LE!).

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Резюме

Выбраны лектотипы и неотипы для 37 названий видов и разновидностей рода *Euphorbia* L., включая 2 линневских названия: *E. lathyris* L. и *E. paralias* L. Особое внимание уделено обоснованию нового выбора лектотипа для *E. virgata* Waldst. et Kit. var. *orientalis* Boiss.

Ключевые слова: *Euphorbia*, лектотипы, неотипы.