

TWO NEW NAMES AND VALIDATION OF NAME IN *NEPETA* L. (LAMIACEAE)

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## Abstract

The previously and invalidly published new combination *Nepeta platystegia* (Rech.f) Jamzad & Serpooshan, is validated here by citing a full and direct reference to its basionym. Two new names are proposed here for *Nepeta calycina* (Boiss.) Jamzad & Serpooshan (*N. neocalycina* M. Idrees), and *Nepeta incana* (Bunge) Jamzad & Serpooshan (*N. heinzii* M. Idrees), which are an illegitimate later homonyms of *N. calycina* Fenzl, and *N. incana* Thunb. ex Houtt, respectively.

**Key words:** Lamiaceae, *Nepeta*, Nomen novum, Nomenclatural notes, Iran.

## Introduction

*Nepeta* L. (Catmint) is one of the largest genera in the family Lamiaceae (subfamily Nepetoideae, tribe Mentheae) and comprises of ca. 256 species (Baser *et al.*, 2000; Jamzad *et al.*, 2003; Jamzad *et al.*, 2005). *Nepeta* species are significantly distributed in Southwest and Central Asia, North Africa, Europe, North and Central America, and the Canary Islands (Pojarkova, 1954; Jamzad *et al.*, 2003). Rechinger (1982) recognized 63 species in the Flora Iranica, but this has now increased to 75 (Delghandi, 1993; Jamzad & Assadi, 1984; Jamzad, 1999; Jamzad, 2001). *Nepeta* species are widely used in folk medicine because of their antiseptic, antispasmodic, antitussive, diuretic, expectorant and antiasthmatic activities. The flowering parts of the plant have also been used as a sedative drug and some species have used for bees as source of pollen and nectar (Baser *et al.*, 2000; Newall *et al.*, 1996; Sammataro & Avitabile, 1998).

Bentham (1848) classified the genus *Nepeta* (109 species) into eight sections and five subsections. Later, Budantsev (1992a) classified *Nepeta* (210 species) in 19 sections and 13 subsections. Levin (1941) transferred *Nepeta* species belonging to sect. *Psilonepeta* to the genus *Lophanthus*, as followed by Budantsev (1992b). Pojarkova (1954) and Rechinger (1982) transferred these species back to *Nepeta*. Jamzad *et al.*, (2003), based on molecular data and floral patterns defined five different monophyletic groups within the genus *Nepeta*, including a few species in the sect. *Psilonepeta*. Recently, Serpooshan *et al.*, (2007) molecular phylogenetic study based on nrITS, plastid trnL intron and trnL-F intergenic spacer DNA sequences were transferred the genus *Hymenocrater* Fisch. & C.A. Mey (1835: 39) (9 species from Iran, and 3 species from Afghanistan), to *Nepeta*. However, we found three names: one name *Nepeta platystegia* (Rech.f) Jamzad & Serpooshan (2017), was invalidly published because direct reference to the basionym was not given, and other two names: *Nepeta calycina* (Boiss.) Jamzad & Serpooshan (2017: 11), and *Nepeta incana* (Bunge) Jamzad & Serpooshan (2017: 12) are found to be an illegitimate being a later homonyms. Hence a new name is necessary as per the ICN Art. 53.1 (Turland *et al.* 2018).

## Results

*Nepeta* L., in Spec. Pl. 2: 570 (1753).

Synonyms: *Cataria* Adans. (Fam. Pl. 2: 192. 1763); *Sestinia* Boiss. (Diagn. Pl. Orient. Ser. 1, 5: 40. 1844); *Marmoritis* Benth. (Bot. Misc. 3: 377. 1833); *Oxynepeta* Bunge (Mém. Acad. Imp. Sci. st.-Petersbourg, Ser. 7, 21(1): 58. 1873); *Hymenocrater* Fisch. & C. A. Mey. (Index Seminum [St. Petersburg (Petropolitanus)] ii. 39. 1835).

**Generitype:** *Nepeta cataria* L. (Spec. Pl. 2: 570. 1753), Europe.

**Type:** Linn. No. 726.1 (LINN!), (Lectotype designated by Green in Prop. Brit. Bot.: 1929 p. 164).

## Taxonomy

**1. *Nepeta platystegia*** (Rech.f) Jamzad & Serpooshan ex M. Idrees, **comb. nov.**

≡ *Hymenocrater platystegius* Rech.f., in *Ann. Naturhist. Mus. Wien li.* 51: 424 (1941).

**Holotype:** Iran, Khorassan, 4 July 1937, *K.H. Rechinger 1412* (W, not seen; isotypes: K000910956!, S-G-3295!, W1952-0000846!, W1956-0006741!).

## Note

Rechinger (1941) validly published the name *Hymenocrater platystegius* Rech.f. (1941: 424) based on the specimen of “*K.H. Rechinger 1412*” collected from Iran. Recently, Jamzad & Serpooshan (2007) transferred the name *Hymenocrater platystegius* Rech.f. to *Nepeta*, and published a new combination *Nepeta platystegia* (Rech.f) Jamzad & Serpooshan **comb. nov.** (2017: 12), and cited the basionym as *Hymenocrater platystegius* Rech.f., in *Fl. Iranica*, 150 (1982 p. 245). However, the valid publication of the cited basionym was in *Ann. Naturhist. Mus. Wien li.* 51: 424. 1941, and, so the citation by Jamzad and Serpooshan (2007) of *Fl. Iranica*, 150: 245. 1982, that Serpooshan *et al.*, (2007) did include in the reference as an indirect basionym reference, rendering the name invalidly published according to Art. 41.5 of the ICN (Turland *et al.*,

2018). In the International Code of Nomenclature (ICN; Turland *et al.*, 2018) a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is clearly indicated and a full and direct reference of valid publication be given. After 1 January 2007, a new combination, name at new rank, or replacement name is not validly published unless its basionym or replaced synonym is cited. Hence, we correct this name by citing a full and complete reference to the basionym.

### 2. *Nepeta neocalycina* M. Idrees, **nom. nov.**

**Replaced name:** *Nepeta calycina* (Boiss.) Jamzad & Serpooshan, *Nordic J. Bot.* 36(1-2)-e01600: 11. 2017. nom. illeg., non *Nepeta calycina* Fenzl, *Flora* 26(1): 400. 1843.

**Lectotype:** Iran, Ispahan, *Aucher-Eloy5121pp* (P00743349!), designated by Budantzev 1992).

#### Note

Fenzl (1843) validly published the name *Nepeta calycina* Fenzl (1843: 400) who provided the following locality and sources “Herb. in Mesopotamia inter Orfa et Suerek–Kotschy”. The Plant of World online (<http://powo.science.kew.org/taxon/urn:lsid:ipni.org:name:s:452319-1>, accessed 4 Mar. 2021), and the world checklist of Vascular Plants (<https://wcvp.science.kew.org/taxon/452319-1>, accessed on 4 March 2021) consider the species is treated as a synonym of *Nepeta stricta* (Banks & Sol.) Hedge & Lamond (1980: 45) (Govaerts, 2003). Later, Jamzad & Serpooshan (2017: 11) published a new combination *Nepeta calycina* (Boiss.) Jamzad & Serpooshan, *comb. nov.*, and cited the basionym: *Sestinia calycina* Boiss. (1844: 41). According to Art. 53.1 of the ICN (Turland *et al.*, 2018), *Nepeta calycina* (Boiss.) Jamzad & Serpooshan, is an illegitimate, being a later homonym of *Nepeta calycina* Fenzl (1843: 400). Therefore, a new name *Nepeta neocalycina* M. Idrees, is proposed here.

**Etymology:** The specific epithet is derived from the prefix *neo-*, meaning new, and *calycina*, the epithet of Jamzad & Serpooshan (2017).

### 3. *Nepeta heinzii* M. Idrees, **nom. nov.**

**Replaced name:** *Nepeta incana* (Bunge) Jamzad & Serpooshan, *Nordic J. Bot.* 36(1-2)-e01600: 12. 2017. nom. illeg., non *Nepeta incana* Thunb. ex Houtt., *Nat. Hist.* 2(9): 307. 1778.

**Holotype:** Iran, Inter Ispahan & “Kaschan” prope “Murtschehan, without date, *Bunge & Bienert s.n.* (P00743354!).

#### Note

When transferring the name *Hymenocrater incanus* Bunge (1873: 63) to *Nepeta*, Jamzad & Serpooshan (2017: 12) published the name *Nepeta incana* (Bunge)

Jamzad & Serpooshan, *nom. nov.*, but the specific epithet “*incana*” was preoccupied by *Nepeta incana* Thunb. ex Houtt (1778: 307). According to ICN; Art. 53.1 (Turland *et al.*, 2018), *Nepeta incana* (Bunge) Jamzad & Serpooshan (2017: 12) is an illegitimate a later homonym of *Nepeta incana* Thunb. ex Houtt. Therefore, a new name *Nepeta heinzii* M. Idrees, is proposed here as replacement name for *Nepeta incana* (Bunge) Jamzad & Serpooshan.

**Etymology:** Name after Dr. Karl Heinz Rechinger (Austrian botanist), for his precious contributions in the genus *Nepeta* in the *Flora Iranica* are outstanding and invaluable.

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