

## A NEW SPECIES AND A NEW RECORD FROM IRAN

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*Nepeta natanzensis* Jamzad is described as a new species from Karkas Mountain in Esfahan province. It is related to *N. lasiocephala* Benth. but differs from it in floral characters, indumentum and bracts. These species belong to the natural group of species in Sect. *Capituliferae* (Benth.) Pojark. characterized by the capitate inflorescence, corolla and calyx shape. *Nepeta trachonitica* Post is recorded from NW Iran for the first time.

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گونه جدید و گزارشی جدید از جنس *Nepeta* از ایران

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گونه *Nepeta natanzensis* که از کوه کرکس جمع‌آوری شده است به عنوان گونه جدید شرح داده می‌شود. قرابت و ارتباط آن با گونه *N. lasiocephala* مورد بحث قرار می‌گیرد. این گونه متعلق به گروه گونه‌هایی است که در بخش *Capituliferae* قرار می‌گیرند و باداشتن گل‌های کپه‌ای، لوب میانی لبه پائینی جام گل و کاسه گل از سایر گروه‌ها قابل تشخیص می‌باشند. به علاوه گونه *N. trachonitica* برای اولین بار از ایران از استان آذربایجان غربی گزارش می‌گردد. این گونه قبلاً از ترکیه و عراق گزارش شده بود.

## Introduction

*Nepeta* L. is the largest genus of *Lamiaceae* in Iran with 75 species (Jamzad 2003a). It is an Irano-Turanian element and Iran is one of the centers of diversity for the genus. Most of the recognized taxonomic sub-generic groups are present in Iran. It is a taxonomically difficult genus and highly variable in morphological characters. A comprehensive study of the genus in Iran has been undertaken by the author using different techniques, such as molecular systematic, chemosystematics and palynology (Jamzad et al. 2000, Jamzad, 2001, Jamzad et al. 2003a, 2003b, 2003c, Jamzad et al. 2005).

In this study a new species of *Nepeta* is identified for the first time and described as new species. Its affinities with related taxa are discussed. *Nepeta trachonitica* Post is recorded from NW of Iran for the first time.

## New species

### *Nepeta natanzensis* Jamzad, sp. nov.

Perennis; caudex lignosus, Caules florifer 7-24 cm longi, adscendentes, pilis longis et papillis minutissimis glanduliferis laxae obsiti. Folia petiolata, petiolis ad 15 mm longis; Lamina 5-15x7-15 mm, late ovato-triangularis, basi truncata vel cordata, apice obtusa, margine crenata, supra pilis densis longissimis multicellularis obsita, subtus prominente nervosa, papillis minutissimis glanduliferis, glandulis sessilibus et pilis longis eglandulosus obsita. Folia capitula fulcrantia 4-8x2-4 mm, oblongo-lanceolata, subtus prominente nervosa, margine spinoso-dentata. Bractea lineares, 6-8 mm longae, apice spinosae, margine longe ciliatae. Inflorescentia capitata, terminalia. Calyx 7 mm longus, tubulosus, glanduloso-papillosus, ore obliquus, dentes lanceolati, ciliati. Corolla coeruleo-violacea 8-10 mm longa, lobo mediano labium inferiore

concava, longitudinaliter plicata, margine integra, tubus calyce inclusa, Nux ignota.

*Typus*. Esfahan, Natanz, Kuh-e Karkas, 3000-3300m, Foroughi & Assadi, 18072 (holotypus TARI) & 18066.

Perennial, with woody caudex. Stems many, ascending, 7-14 cm high, covered with long multicellular hairs intermixed with a few short papillose glandular hairs. Leaves petiolate; petioles to 15 mm long; blade 7-15x7-15 mm, broadly ovate-triangular, truncate to cordate at the base, obtuse, crenate; lower surface with prominent veins, covered with long simple hairs, sessile glands and short papillose glandular hairs; upper surface covered with dense and long multicellular hairs; floral leaves 4-8x2-4 mm, oblong-lanceolate, with prominent nerves on lower surface; margin with triangular spinescent teeth. Bracts linear, 6-8 mm long, ciliate. Inflorescence capitate, terminal. Calyx 7 mm long, tubular, covered with short papillose glandular hairs: throat oblique; teeth lanceolate, ciliate; lower teeth longer. Corolla blue-violet, 8-10 mm; tube included in the calyx, middle lobe of the lower lip concave with a longitudinal fold and entire margin. Nutlet not seen (Fig 1).

*Nepeta natanzensis* is closely related to *N. lasiocephala* Benth. but differs from it in the corolla colour, floral leaves, indumentum and bracts. The differences are summarized in table 1.

The specimens cited above were listed in Rechinger (1982) under *N. lasiocephala* Benth.; he pointed (p. 138) out that Kuh-e Karkas specimens differed in the less dense indumentum. However a detailed study of specimens, named *N. lasiocephala* in Herbarium of Research Institute of Forests and Rangelands showed the differences as mentioned in table 1.



Fig. 1. *Nepeta natanzensis* ( x 0.8); flower (x 3.2).

Table 1. Differences of morphological characters in two *Nepeta* species.

<i>Nepeta lasiocephala</i>	<i>Nepeta natanzensis</i>
Plant gray.	Plant green.
Flowers pink	Flowers blue-violet.
Stem with dense glandular papillose hairs intermixed with a few long hairs.	Stem with long multicellular hairs intermixed with a few short papillose glandular hairs.
Upper leaf surface with long, dense simple white hairs; lower surface with dense sessile glands and long hairs on veins.	Upper leaf surface with simple and papillose hairs; lower surface with papillose glandular hairs intermixed with dense sessile glands and long hairs on veins.
Floral leaves crenate, bracts and bracteoles linear, ciliate with long, dense and white hairs.	Floral leaves with acute spinescent teeth; bracts and bracteoles linear, ciliate with short hairs.
Corolla tube exerted from calyx.	Corolla tube included in calyx.
Calyx covered with long white villouse and papillose hairs in upper part; upper teeth 4 mm; lower teeth 5.5 mm, ciliate with dense, long white hairs.	Calyx covered with short papillose glandular hairs; upper teeth 2 mm; lower teeth 3 mm.

*Nepeta natanzensis* belongs to the natural group of species placed in sect. *Capituliferae* (Benth.) Pojark. The characteristic features of the species in this group are the capitate inflorescence, the curved corolla tube and the calyx with an oblique throat.

### New record

#### *Nepeta trachonitica* Post

*Nepeta trachonitica* Post was previously recorded from southeastern Turkey and Iraq (Rechinger, 1982). In the course of this study, it was identified from NW of Iran, Azarbayejan province. It is recorded here for the first time for the flora of Iran.

Azarbayejan, Urmieh towards Marmishou, 1450 m, Maassoumi & Nikchehreh, 80261.

*N. trachonitica* is recognized by long spike inflorescence, long calyx teeth, dark purple-violet flowers and tuberculate nutlet (Fig. 2).

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Fig. 2. *Nepeta trachonitica* ((x 0.5); flower (x1); nut (x 6.2).

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