

A NEW SPECIES OF NEPETA L. (LABIATAE) FROM IRAN

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Nepeta makuensis is described as a new species. It is considered to belong to the section *Psilonepeta* Benth. The new species is characterized by tubular campanulate calyx constricted in the throat. The hairy ring of the calyx is located in the middle of the tube while in the other members of the section the ring occur at the base of the teeth.

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یک گونه جدید از جنس *Nepeta* L. از ایران

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گونه جدید *Nepeta makuensis* از ایران نامگذاری و شرح داده می‌شود. این گونه از بخش *Psilonepeta* Benth. بوده و با داشتن کاسه گل لوله‌ای - استکانی که در ناحیه گلو متورم و پهن می‌باشد، مشخص می‌گردد. حلقه کرک در این گونه در قسمت میانی لوله کاسه گل قرار گرفته که این صفت متفاوت از سایر گونه‌ها است که در آنها حلقه کرک در قاعده دندانها واقع شده است.

Introduction

The genus *Nepeta* L. with about 70 known species in Iran is the largest genus in the *Labiatae* family in the country. Iran is one of the centres of diversity for the genus with about 50 perennials from which 30 are endemics.

In the course of studies on the genus *Nepeta* in Iran, some new species have been described by the author, i. e. *N. pogonosperma* Jamzad & Assadi, *N. shahmirzadensis* Assadi & Jamzad, *N. binaloudensis* Jamzad and *N. assadi* Jamzad.

Among the plants collected from W. Azarbayegan there was an interesting *Labiatae* which seemed to be close to the genus *Nepeta*, but with a few different characters on the calyx. The specimen was compared with the other genera of *Nepeteae* such as *Lophanthus*, *Hymenocrater* & *Dracocephalum*, in the herbaria of TARI, W and G. In spite of some similarities of mentioned genera with the unknown specimen, no distinct characters observed to place the specimen in any of the named genera. In a recent study of the genus *Nepeta* by the author the pollen grains of *Nepeta* sections *Cataria*, *Stenostegiae* and *Psilonepeta* and the new specimen were

studied, using SEM photographs. The shape of pollen grains and the number of colpi as well as the surface detail fit well with the genus *Nepeta* so for the time being it is considered as a species of the genus *Nepeta* section *Psilonepeta* which is described here.

***Nepeta makuensis* Jamzad & Mozaffarian, sp. nov.**

Perennis, pluricaulis. Caules 60 cm alti, erecti, patenter glanduloso-villosi. Folia inferiora 2.5-4 × 2-2.5 cm, ovato-crenata, margine crenato-dentata, petiolata; petiolo 0.5-1 cm longo; folia superiora et floralia sessilia, gradatim decrescentia. Cymae 3-5 florum, inferiores remotae, superiores ± approximatae, pedunculatae; pedunculis 0.5-2 cm longis. Bractae 5-8 × 2-3 mm, ovato-lanceolatae, acuminatae. Calyx 11-12 mm longus, fructifer ad 14 mm longus, tubuloso-campanulatus, prominente 15 nervosus; intus medio piloso-annulatus, ore rectus, dentes 2.5-4 mm longi, triangularo-acuminati, reticulato-nervosi. Corolla ± resupinata, 17-20 mm longa, minute puberula, flava; labium superius bifidum, labium inferius trilobum; lobo



Fig. 1. *Nepeta makuensis* ($\times 0.53$).

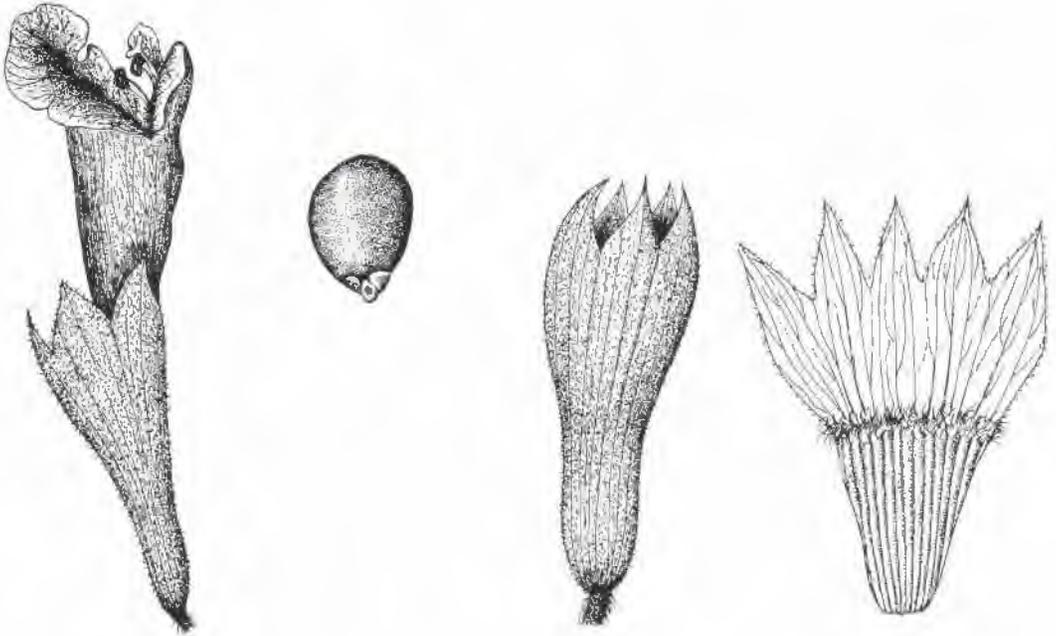


Fig. 2. *Nepeta makuensis*. -Flower ($\times 3.9$); nutlet ($\times 8.7$); calyx ($\times 4.5$).

medio \pm reniformis emarginatis, violaceo-punctatis. Stamina superiora corollam labium superiorum aequantia. Nux 2.1×1.4 mm, ovata, laevis.

Typus. Azarbajejan: Maku, rocky mountain between Shut and Umeridash and Nieyaz to Dashfishel, 1700 m, 18. 7. 1991, Mozaffarian 71140 (holotypus TARI).

Perennial, stems many, 60 cm high, covered by patent glandular villous hairs. Lower leaves $2.5-4 \times 2-2.5$ cm, ovate-cordate,

crenate-dentate at the margin, petiolate; petioles 0.5-1 cm long; upper and floral leaves gradually becoming smaller, sessile. Cyme 3-5 flowered, pedunculate; peduncles 0.5-2 cm long. Bracts 5-8 \times 2-3 mm, ovate-lanceolate, acuminate. Calyx 11-12 mm long, up to 14 mm in fruiting, tubular - campanulate; the tube with 15 distinctly prominent nerves, with a hairy ring inside near the middle; the teeth triangular, acute, reticulately nervose; the throat straight. Corolla \pm resupinate, 17-20 mm long, yellow, minutely hairy outside: upper lip

cleft; middle lobe of the lower lip reniform, emarginate with violet dots. Upper stamens as long as the upper lip of the corolla. Nutlets 2.1×1.4 mm, ovate, smooth.

Nepeta makuensis is very unique in the genus *Nepeta*, for the shape of calyx, having a ring of hair inside the tube and the \pm resupinate corolla. It is close to *N. allotria* Rech f. from the point of having resupinate corolla and calyx shape but is different from it by having the not exerted stamens and the hairy ring of the calyx which is, located in the middle of the calyx tube and not in the calyx throat; moreover, the plant is more leafy with larger leaves in *N. makuensis*. Comparing the new species with *Lophanthus lipskyanus* Ik. -Gal. & Nevski, the calyx and corolla are smaller, the corolla is dilated suddenly in the throat, the stamens are exerted and the ring of hair is located at the base of the calyx tube in *L. lipskyanus*. It has also been compared with

Hymenocrater altimurensis Rech. f. which has scarious calyx teeth and strongly resupinate corolla. Meanwhile the distribution of *Hymenocrater altimurensis* and *Lophanthus lipskyanus* is Afghanistan and Central Asia.

Nepeta section *Psilonepeta* Benth. with 9 previously known species in Iran, mainly occur in western part of the country in Zagros mountains. The new species has been discovered in N. W. Iran, West Azarbayejan province which is geographically close to *N. scrophularioides* Rech f. from Mishu-Dagh mountain. *N. scrophularioides* is characterized by its short calyx (4 mm long) with oblique throat, violet corolla and dichasial pedunculated cymose inflorescence. Other members of the section are different from *N. makuensis* by different characters such as calyx, flowers, leaf and etc.