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PJBS

ISSN 1028-8880

Pakistan Journal of Biological Sciences

ANSInet
Asian Network for Scientific Information
308 Lasani Town, Sargodha Road, Faisalabad - Pakistan

Pakistan Journal of Biological Sciences 11 (8): 1173-1175, 2008
ISSN 1028-8880

A New Variety of *Salvia macrosiphon* (Lamiaceae) for Iran

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Abstract: In this study, *Salvia macrosiphon* Boiss. var. *longiflora* Kharaz. is reported for the first time as one of the new varieties of *Salvia macrosiphon* in Iran. The morphological characters of this variety have been described in details.

Key words: Lamiaceae, *Salvia*, Iran, variety, *Longiflora*

INTRODUCTION

Salvia L. genus (Lamiaceae Family) which represents an enormous and cosmopolitan assemblage of nearly 1000 species in the world displays a remarkable range of variation (Walker *et al*., 2004). Fifty five species of *Salvia* genus have been reported in Iran growing in arctic, subarctic and tropical regions (Hedge, 1982). Some of these species are perennial, herbaceous, suffruticose, fruticose and subshrubby (Hedge, 1982). *Salvia macrosiphon* Boiss. is a polymorphic species with a wide variation in morphological characters (Hedge, 1982), in addition, it is abundant and polymorphism in Iran (Hedge, 1990). For the first time, Boissier (1879) reported this species in Flora Orientalis with one variety; *S. macrosiphon* var. *Kotschyi* (Boiss.) Boiss. which grow in Shiraz, Isfahan, Kerman, Khorassan and Balouchestan province, Parsa (1949) reported *S. macrosiphon* var. *glandulosissima* Bornm. in the east of Khorassan, between Mashhad and Torbat-e Heydari. Bornmuller (1934) and Parsa (1949) reported *S. macrosiphon* var. *cabulica* Dc. in the south-east of Balouchestan and Kerman. In this study the habitat of new variety of *Salvia macrosiphon* has been shown and morphological characters are exactly described. So far this variety has not been reported in Iran.

MATERIALS AND METHODS

In this study *S. macrosiphon* were collected from some natural habitats of south Iran, Fars province: north-east of Shiraz, toward Marvdasht-Arsanjan, south-east of Arsanjan, Abadeh-Tashk, around the chromate Mine Khaj-e Jamali, on May 2005. This new variety grows in chromate soil at 1850 m (Fig. 1). Voucher specimens are deposited in Herbarium of Shahrekord University (SUH).

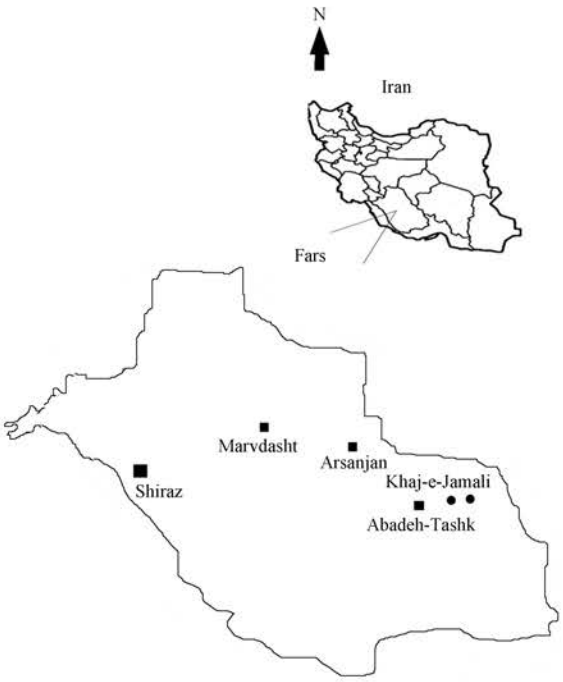

Fig. 1: Location of *S. macrosiphon* var. *longiflora* (●) in Fars province

RESULTS

Description: *Salvia macrosiphon* Boiss. var *longiflora* Kharaz. var. nov. (Fig. 2).

Affinis *S. sclerea* L., sed biennis vel±perennis. Caules erecti; inferne eglanduloso-villosi. Folia subtus glandulis, basi cordata. Bracteae roseae vel malvaceae vel albidae. Pedicelli 2-3 mm longi.

Biannual or ±perennial. Stem erect; in lower part eglandular-villous. In lower part of leaf glandular, in base cordate. Bracteole pink or violet or white. Pedicel 2-3 mm long.

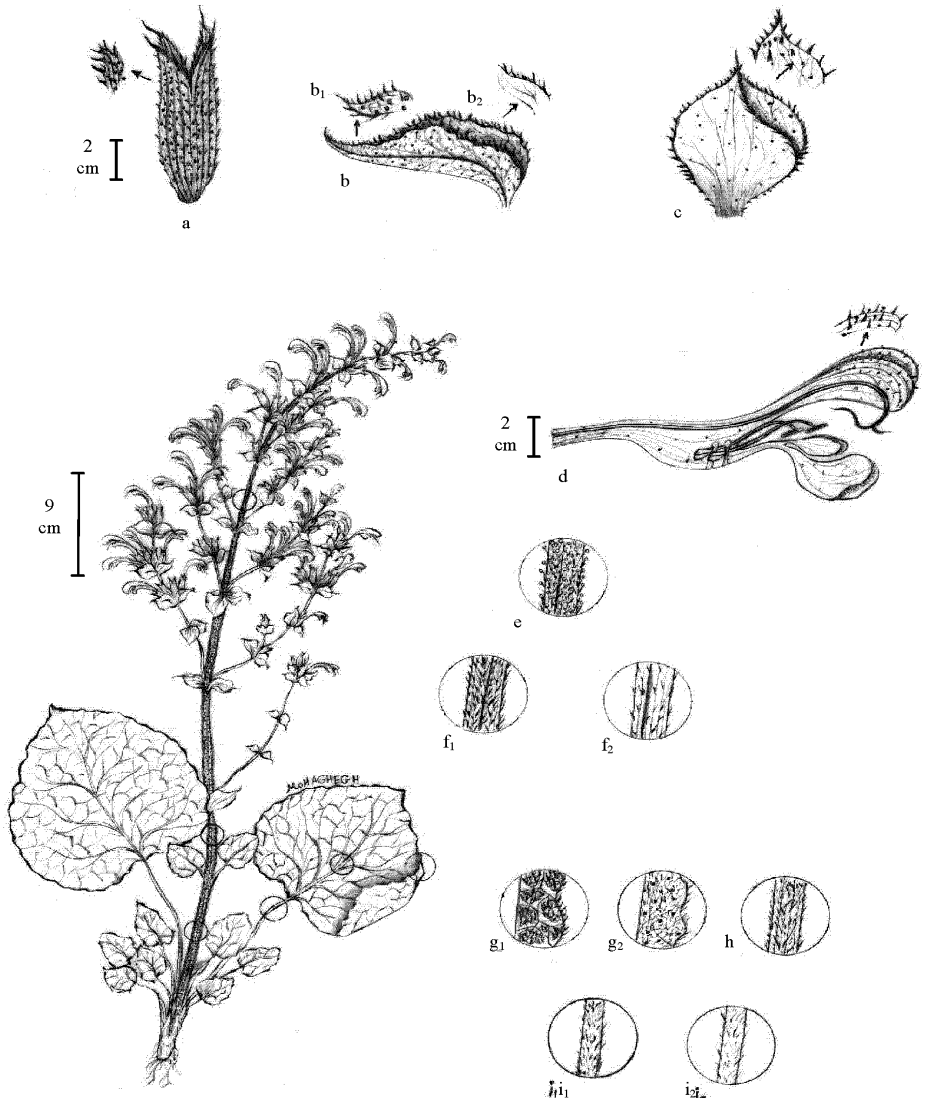

Fig. 2: A) Habitat of *S. macrosiphon* var. *longiflora*, (a) indumentum and shape of calyx; (b) indumentum of bract; (b_1) indumentum of lower surface in bract; (b_2) indumentum of upper surface in bract; (c) bracteole; (d) flower; (e) indumentum of upper part in inflorescence; (f_1) indumentum of lower part in stem; (f_2) indumentum of upper part in stem; (g_1) upper surface of basal leaf; (g_2) lower surface of basal leaf; (h) petiole; (i_1) indumentum of upper part in veins and (i_2) indumentums of lower part in veins

Perennial, herbaceous. Stem c. 41.5 cm long, erect, violet, lower part of stem with high indumentum, very long eglandular, upper part of stem with norm indumentum, very short eglandular, in base very thick. Leaves mostly basal, 11×10.7 cm, violet-green, broad rotundate or orbicular, base of leaf cordate, with norm indumentum, tuberculate, granular, very long and short eglandular, margins sinuate, veins long and very long eglandular, cauline leaf violet-green, 3.5×1-1.7 cm, ovate, acute, in upper surface with norm indumentum, long eglandular, granular, tuberculate, arachnoid, in lower surface with highly indumentum, short eglandular, margins dentate or irregularly lobed; petiole 4-7.2 mm long, with norm indumentum. Inflorescence with norm indumentum, glandular, granular; 2-3 flowers in each verticillaster. Bracts 3.5×1.5 mm, ovate-elliptic, green-violet, margins sinuate, crenate, with high indumentum, short and long eglandular, granular, stellate. Bracteoles cordate,

24×19 mm, mucronate, 3 mm long, green-violet, or white-violet, granular, strigose, margins strigose. Pedicel 2.5 mm long, short eglandular, granular. Calyx very long tubular, 23×5.5 mm, spinose 0.5-2.2 mm; upper lobe with three teeth, 0.9 mm, with spinulose teeth, 0.5 mm; lower lobe with two teeth, 2 mm. Corolla white, 42.9 mm long; upper lobe with violet pilose. Filament 2.9-3 mm; connective 14.5-15.5 mm. Style 56.5 mm.

Type: Fars province, north-east of Shiraz, toward Marvdasht-Arsanjan, south-east of Arsanjan, Abadeh-Tashk, around the chromate Mine Khaj-e Jamali, 1850 m, 04.05. 2005, N. Kharazian 109 (Holo SUH).

DISCUSSION

In Flora Orientalis, Boissier (1879) has reported *S. macrosiphon* var. *Kotschyi*. Diagnostic characters are as follow: Calyx and corolla slightly short. Bornmuller (1934) and Parsa (1949) have reported *S. macrosiphon* var. *glandulosissima* and *S. macrosiphon* var. *cabulica*. Diagnostic characters are: *S. macrosiphon* var. *glandulosissima*-Calyx and inflorescence have dense glandular hair, *S. macrosiphon* var. *cabulica*-Calyx 14-20 mm long. In Flora of Afghanistan, Bornmuller (1934) reported *S. macrosiphon* var. *brachycalycina* Bornm. with very short fruit-calyx, not longer than 10-11 mm. In Flora Iranica, Hedge (1982) reported the synonyms of *S. macrosiphon* which are; all of the varieties of this species, *S. Kotschyi* Boiss., *S. cuspidatissima* Pau., *S. albifrons* Nab. and *S. nachiczevanica* Pobed.. Diagnostic characters of these species have been reported by Boissier (1879), Parsa (1949) and Pobedimova (1954). These taxa were described in details: *S. Kotschyi*-Calyx and corolla short (Boissier, 1879), *S. cuspidatissima*-Leaf oblong. Calyx 14 mm long. Corolla 24 mm long (Parsa, 1949). *S. albifrons*-Leaf cordate, ovate. Calyx 2 cm long. Corolla 28-30 mm long (Parsa, 1949). *S. nachiczevanica*-Leaves elliptical, 2-4.5 cm long, 1.2-2 cm broad, rounded at base, tomentose; petioles twice to three times the length of blade; cauline leaves suborbicular with long simple and glandular hairs, floral leaves with short stipitate glands, margin long ciliate, the upper side with scattered long simple hairs or subglabrous. Calyx tubular-campanulate, 15-17 mm long. Corolla 2.5 cm long (Pobedimova, 1954).

The new *S. macrosiphon* variety is described by the following characters: leaf broad rotundate or orbicular, 11×10.7 cm, cordate at base, with norm indumentum, tuberculate, granular, very long and short eglandular; petiole 4-7.2 mm long, with norm indumentum. Bracts with high indumentum, short and long eglandular, granular, stellate. Calyx very long tubular, 23×5.5 mm long. Corolla 42.9 mm long.

CONCLUSION

S. macrosiphon has high variability in morphological characters which is related to high hybridization and introgression with other species (Hedge, 1982).

ACKNOWLEDGMENTS

Author is thankful to Prof. Dr. Birgit, Gemeinholzer, Botanischer Garten und Botanisches Museum Berlin-Dahlem, Freie Universitat Berlin, Germany for valuable scientific help, Dr. Iraj Mehregan, Institute fur Spezielle Botanik und Botanischer Garten, Universitat Mainz, Germany for translate Aus der Flora Afghanistan, Dr. A.R. Khosravi at the Botany Department, Shiraz University to confirm the voucher specimens, Ms. Mohaghegh for her precise hand drawing and Mr. H. Fatahi at the Herbarium of Shahrekord University for his assist. The research was supported by the research Deputy of Shahrekord University. The number of research project: 1678.

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