

A New Record of *Nigella* L. (*Ranunculaceae*) for Flora Syria

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Abstract

The genus *Nigella* L. has approximately 22 species worldwide, distributed mostly in the Mediterranean region and closely adjacent areas. Various taxonomic treatments of the genus have been carried out as accounts in various floristic studies.

In the course of an ongoing taxonomic study on the genus *Nigella*, an extensive field trip has been carried out in Syria. During the study at Aleppo area near the Turkish border, the specimens of *Nigella nigellastrum*, which is the first report for the flora of Syria, have been collected. In consideration of the relevant literature, the species number of the genus has been raised to ten with this new record. A picture of the species taken from field has been given.

INTRODUCTION

The genus *Nigella* L. has approximately 22 species worldwide, distributed mostly in the Mediterranean region and closely adjacent areas. Various taxonomic treatments of the genus have been carried out as accounts in various floristic studies [1-13]. The genus has been currently under study worldwide by the support of Turkish Scientific Research Council.

Although *Nigella nigellastrum* (L.) Willk. has been

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included in the genus *Garidella* L. by various authors, it has been accepted in the genus *Nigella* by the author of the Flora Syria [4]. In this paper, his classification has been followed.

***Nigella nigellastrum* (L.) Willk. in Willk. et Lange, Prodr. Fl. Hisp. 3: 963 (1880).**

Lectotype: (Zohary 1983: 78) Herb. Linn. no. 587.1 (LINN).

Erect, slender, wiry annual, 10-50 cm; stem glabrous, sulcate with pale angles, with a few long, ascending branches. Basal leaves 1-2- with pinnate, glabrous, oblong in outline, 5-9 cm, including 2-4 cm petiole, bipinnate with long, narrowly linear segments; cauline leaves similar, the upper becoming pinnate and finally trisect, sessile. Flowers few to many, solitary, on elongate

peduncles bearing 1-2 remote, small leaves. Sepals greenish, usually tinged with purple, ovate, acute, 3-5 mm, distinctly keeled dorsally, the pale margins often minutely scabrid-denticulate. Petals white with a pale blue blotch, 6-9 mm, long bilabiate, claw stout, c. 3 mm; outer lip 4-6 mm, oblong, cuneate below, bifid to about halfway with narrow, tapering lobes, the undivided portion clavate-pilose on the gibbous ventral surface; inner lip undivided, lanceolate-slightly exceeding the carpels; anthers short, purple-tinged. Carpels usually 2(3), prominently verruculose. Folicles 4-8 mm, ovoid to oblong, pale brown, each terminating in a short beak of 0.3-1 mm; seeds c. 2 mm, black when ripe, rugose with prominent anastomosing ridges.

Ecology and phenology: Flowering 5-6. Steppe, rocky slopes and opening of various scrubs. 0-1300 m.

Distribution: S. Europe (very scattered), Cyprus, Turkey, Syria, Caucasus, C. Asia.

DISCUSSION

The distribution area of the species *Nigella nigellastrum* covers Spain, France, Crete, Crimea, Caucasus, Iran, Iraq, E Aegean islands, Cyprus, Turkey and Syria. Although it has an extensive distribution pattern, it is very local species and it is represented by a few specimens in the herbaria. It mostly prefers dry areas of limestone rocks or other open places among various scrubs.

Nigella nigellastrum is known only from a single location in Syria. However, it is likely to find it other locations in Syria. The specimens of the species are very abundant locally in a small spot of the study area.

The habitat of the species at the collection site is covered by *Sarcopoterium spinosum* (L.) Spach *Quercus* sp. *Olea europaea* L. and other hemicryptophytic plants. It is possible to find the specimens in the opening areas of the slopes. They are well protected from grazing in the shrubs.



Figure 1. *Nigella nigellastrum*: Flower and fruit in nature (Photo: Ali A. Dönmez).

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REFERENCES

1. Krasheninnikov, I.M., *Nigella* L. In *Flora URSS*. Komarov VL ed., Botanical Institute of the Academy of Science of the USSR. Israel Program for Scientific Translations, Jerusalem: Keter Press Binding, 1970.
2. Davis, P.H., *Nigella* L. In: *Flora of Turkey and The East Aegean Islands*. Davis, P.H. (ed). Edinburgh: Edinburgh University Press, 1965.
3. Davis, P.H., Mill, R.R., Tan, K. *Nigella* L. In: Davis PH, Mill RR, Tan K., eds. *Flora of Turkey and The East Aegean Islands*, Vol. 10. Edinburgh: Edinburgh University Press, 13, 1988.
4. Mouterde, P.S.J., *Nigella* L. In: *Nouvelle Flore du Liban et de la Syrie* (texte), Dar El-Machreq Editeurs, Liban, 2, 5, 1966.
5. Meikle, R.D., *Nigella* L. In: *Flora Cyprus*. Kew, Pressed in University of Glasgow, 1, 60, 1977.
6. Townsend, C.C., *Nigella* L. In: *Flora Iraq*, Baghdad, Ministry of Agriculture & Agrarian Reform Republic of Iraq, 4, 675, 1980.
7. Pignatti, S., *Nigella* L. In: *Flora d'Italia*, Edagricole, 1, 283, 1982.
8. Riedl, H., *Nigella* L. In: *Flora Iranica*. Iranshahr, M., Rechinger, K.H., Riedl, H. (eds). Graz-Austria: Akademische Druck-Verlagsanstalt, 1992.
9. Tutin, T.G., *Nigella* L. In: *Flora Europea*. Tutin, T.G., Heywood, V.H., Burgges, N.A., Valentine, D.H., Walters, S.M., Webb, D.A., (eds.) Cambridge, Cambridge University Press (second edition), 1992 .
10. Tutin, T.G., Akeroyd, J.R., *Garidella* L. In: *Flora Europea* 1: 253. Tutin, T.G., Heywood, V.H., Burgges, N.A., Valentine, D.H., Walters, S.M., Webb, D.A., (eds.) Cambridge, Cambridge University Press (second edition), 1993.
11. Strid, A., *Garidella* L. In: *Flora Hellenica*. Strid, A., Tan, K. (eds). Gantner, Verlag, 1997.
12. Strid, A., *Nigella* L. In: *Flora Hellenica*. Strid, A., Tan, K. (eds). Gantner, Verlag, 1997.
13. Zohary, M., The Genus *Nigella* (Ranunculaceae) - Taxonomic revision, Pl. Syst. Evol. 142, 71, 1983.