

TRIFOLIUM INCARNATUM L. (PAPILIONACEAE), A NEW RECORD FOR THE FLORA OF IRAN

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Trifolium incarnatum L. is reported for the first time for the flora of Iran. It has been collected from Marivan area in Kurdistan province. This species belongs to the section *Trifoilium* and distinguished from *T. sylvaticum* Gerard ex Loisel by the following characters: Dense, large head (about twice as much as the later one) and red flowers. Also it differs from *T. stellatum* L. by possessing larger leaflets, oblong heads (about two times longer than the later) and red flowers.

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Key words: *Trifolium incarnatum*; crimson clover; new report; Kurdistan, Iran

گزارش گونه *Trifolium incarnatum* L. برای اولین بار از ایران

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گونه *Trifolium incarnatum* L. به عنوان گزارش جدیدی از ایران معرفی می‌گردد. این گونه از منطقه مریوان در استان کردستان جمع آوری شده است. متعلق به Section *Trifolium* بوده، از نظر داشتن گل آذین فشرده، بزرگتر (حدود دو برابر) و جام گل قرمز از گونه Gerard ex *T. sylvaticum* Loisel قابل تشخیص است. همچنین به دلیل داشتن برگچه‌های بزرگتر، گل آذین مستطیلی بلند (به طول ۲ برابر) و جام گل قرمز از گونه *T. stellatum* L. قابل تشخیص است. این گونه قبلاً از اروپا و ترکیه گزارش شده است.

INTRODUCTION

The genus *Trifolium* L. comprises about 237 species mostly growing in the temperate northern hemisphere but many of them occur at high elevation in mountainous regions in the South America and Africa as well. *Trifolium incarnatum* L. (crimson clover, scarlet clover, Italian clover or carnation clover) is widely cultivated and more or less naturalized in some areas. During the study of herbarium specimens of Kermanshah (RANK), a specimen was determined as *Trifolium incarnatum* L. which had not been reported from Iran before and is a new record for the flora of Iran.

New record

Trifolium incarnatum L.

Kurdistan: Marivan, Miraji Mountain, above Zarivar Lake, 1522m, Tabad 7992, RANK.

Annual, appressed to patulous-villous, 20-35 cm. Stems erect or ascending. Stipules membranous, the lower part sheathing below, connate and adnate to petioles for three-fifths of their length, free portion green or purplish, ovate-dentate, hairy. Leaflets 7-20 × 10-22 mm, obovate, retuse, dentate. Heads 15-20 × 25-45 mm, oblong; peduncle thick. Flowers 10- 12 mm. Calyx tube cylindrical with 10 prominent nerves; teeth linear to subulate, acute, almost equal. Corolla deep red, longer than calyx. Pod ovoid, membranous. Seed

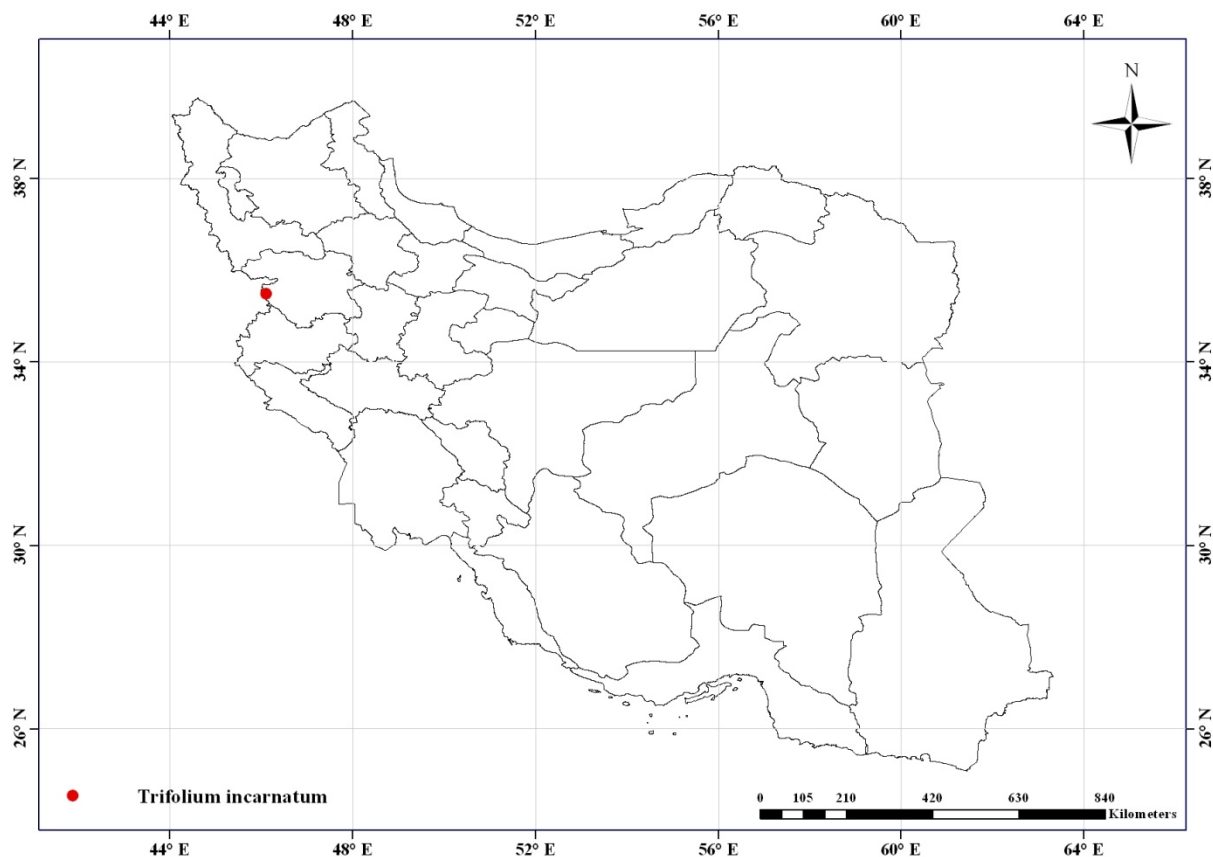
1, globular.

Flowering period is from early April to June.

Trifolium incarnatum is related to *T. sylvaticum* Gerard ex Loisel and *T. stellatum* L. but it is distinguished from *T. sylvaticum* Gerard ex Loisel by the following characters: Dense, large head (about twice as much as the later one) and red flowers. Also it differs from *T. stellatum* by possessing larger leaflets, oblong heads (about two time longer than the later) and red flowers.

Distribution and habitat: General distribution of the

species is Europe (British Isles, Portugal, Spain, France, Italy and islands, Balkan & Peninsula) and Turkey. It is cultivated through Europe and also in Turkey. This species was observed as a naturalized or wild species in its mentioned habitat in Marivan in the west of Iran (map 1 and fig. 1). It is located above Zarivar Lake. The habitat is a mountainous forest dominated by oak trees. The altitude range of the habitat is between 1500 and 1750m above sea level. The soil texture is clay to clay-loam. This species grows on the south slope.



Map 1. Distribution map of *Trifolium incarnatum* in Iran.

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REFERENCES

Heller, D. 1982: *Trifolium* in Rechinger, K.H. Flora Iranica (PapilionaceaeII) no. 157: 275-325.- Graz Austria.

Townsend, C.C. 1974. *Trifolium* in C.C. Townsend & Evan Guest, Flora of Iraq, vol.3: 150-196. - Baghdad.

Zohary, M. & Heller, D. 1984: The Genus *Trifolium*. - The Israel Academy of Sciences and Humanities. Jerusalem.

Zohary, M. 1969: *Trifolium* in P.H. Davis Flora of Turkey and the East Aegean Islands. vol.3.- Edinburgh University press.



Fig. 1. *Trifolium incarnatum* in its habitat (photo by M. A. Tabad, 22 April 2015).