

A NEW RECORD AND AN INTERESTING REPORT OF EUPHORBIA L. (EUPHORBIACEAE) FROM IRAN

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The genus *Euphorbia* was studied based on morphological characters in NE. Iran. *E. cheirolepioides* Rech. f. is distinguished as a synonym of *E. grossheimii* Prokh. *E. turkestanica* Regel is reported for the second time from NE Iran for the flora of Iran.

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Key words. *Euphorbia*, new synonym, new record, Iran, Khorassan.

ضمن مطالعات تاکسونومیک جنس *Euphorbia* در شمال شرق ایران *E. cheirolepioides* مترادف با *E. grossheimii* قرار داده شد. همچنین گونه *E. turkestanica* به عنوان یک گونه نادر برای دومین بار از شمال شرق ایران گزارش می شود. پراکندگی جغرافیایی و تصاویر هر دو گونه آورده شده است.

INTRODUCTION

During taxonomic studies on the genus *Euphorbia* in Khorassan Province a specimen was found that was named *Euphorbia grossheimii* Prokh. Further studies showed that *E. cheirolepioides* Rech.f. is a synonym of *E. grossheimii*. *E. turkestanica* Regel was identified and reported as a rare species for the flora of Iran. These reports are explained in this paper. The herbarium specimens are preserved in Ferdowsi University of Mashhad, Herbarium (FUMH).

INTERESTING REPORT

Euphorbia grossheimii Prokh. in *Izv. Glavn. Bot. Sada S.S.S.R.* 29: 55. (1930). Fig.1, map 1.
Syn.: *E. isthmia* Tackh. in *Svensk Bot. Tidskr.* 26: 374, cum tab. (1932). *E. mariae* Tamamsh. in *Dokl. Acad. Nauk. Arm. S.S.R.* 1: 44 (1944). *E. cheirolepioides* Rech. f., *Dansk Bot. Ark.* 15, 4: 48 (1954).
Specimens seen. Khorassan Razavi: Sabzevar, Mehrabad, 920m, Joharchi 11264 (FUMH). Yazd: 54 km from Bafgh to Sheitoor (CA4), 2000 m, Assadi & Bazgosha 56033. Hormozgan: near Jalabi on road to Rudan, 45 m, Wendelbo and Foroughi 15656; Minab, Chahsmaail, 40 m, Riazi 4864; Bandarabbas, 35 km to

Jask, (EP4), 40 m, Mozaffarian & al. 38010; enter Bandarabbas et Minab, Ghahreman & Aghustin s. n. Tehran: SW of Karaj, Rud-e Shur, 1130 m, Janbaglou 36304.

E. grossheimii is an Irano-Touranian element and has been described and reported from Nakhijevan area close to the Iranian border and Transcaucasia. The specimens collected from Khorassan Razavi (Sabzevar-Mehrabad) was compared with *E. grossheimii* original description and was determined as *E. grossheimii* by the authors and also Mr. Bahram Zehzad from Shahid Beheshti University, an expert working on the genus *Euphorbia* since many years ago.

E. cheirolepioides has been known as an endemic species to Iran in *Flora Iranica* (Rechinger & Schiman-Czeika 1963). Type specimen has been collected from Bushehr (Koeie 162) in south of Iran and another one from Bahmedi in Hormozgan province (Behboodi 817-E). Several specimens of this species from the area close to the type locality of the species in TARI herbarium, illustrations of the species in *Flora Iranica* (Rechinger & Schiman-Czeika 1963) and *Flora of Iran* (Ghahreman 1986) were studied. No substantial changes were observed between the characters of these specimens, illustration of the species and the specimen

from Khorasan province formerly named *E. grossheimii*. Therefore, the two species are regarded as synonymy. After the preparation of this paper Pahlevani (2007) reported *E. grossheimii* from NW Iran in a locality (30 km on the road from Marand to Jolfa) rather close to the type locality of *E. grossheimii*. The Pahlevani report and the reports are given in this paper for *E. grossheimii* connect the disjunctive distribution of the species from southern Iran to northwestern and northeastern Iran and also to Pakistan and to Palestine and Sinai desert. (map 1).

E. isthmia has a distribution in north of Egypt, Sinai desert, Palestine, south of Syria, Jordan, north of Saudi Arabia, Iraq and Baluchestan of Pakistan and to be expected in Iran (Smith 1980 and 1986). Descriptions of *E. isthmia* and Iranian specimens of *E. cheirolepioides* match very well and therefore extended distribution of *E. isthmia* should be referred to the same complex. Therefore, this species is also regarded as a synonymy of the complex. *E. grossheimii* is the oldest name and therefore, due to the priority rule is known as the correct name.

The habitat of the specimens collected from Iran is on sandy gravel hills or deserts and similar to what has been mention in the literature for the other areas.

NEW RECORD

Euphorbia turkestanica Regel Descr. Pl. Nov. Fedtsch. 78 (1882), Fig. 2

Specimen seen: Khorassan Razavi: Mashhad to Salehabad, east of Goosh laghar, 700 m, Joharchi & Zangoeei 20287 (FUMH).

E. turkestanica has been reported from Central Asia and China (Xingjiang) and the type specimen is from Uzbekistan near Katti-Kurgan (Hill 1949). Mobayen

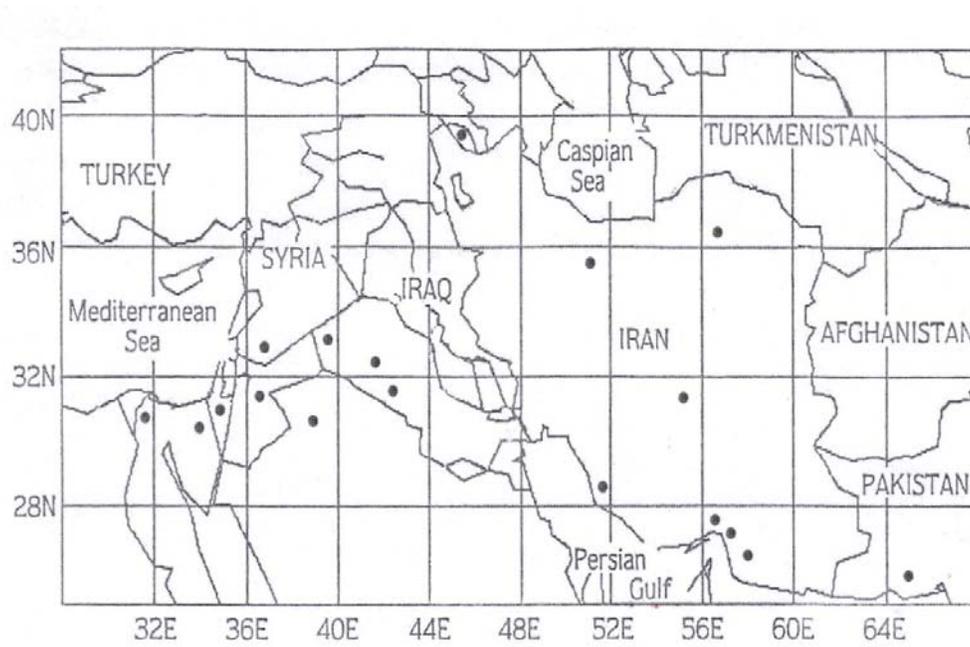
(1979) in Flora of Iran, Vascular Plants reported it from NE. Iran, but with no exact locality and cited specimen. It is reported as a rare species for the second time from NE Iran. This species is very similar to *E. bungei*, but *E. turkestanica* contrary to *E. bungei* is an annual plant (Hill 1949; Rechinger 1963). *E. turkestanica* belongs to the section *Tithymalus* Boiss. and subsection *Carnulares* Boiss. (Rechinger 1963).

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Map 1. Distribution map of *Euphorbia grossheimii* in the Middle East.

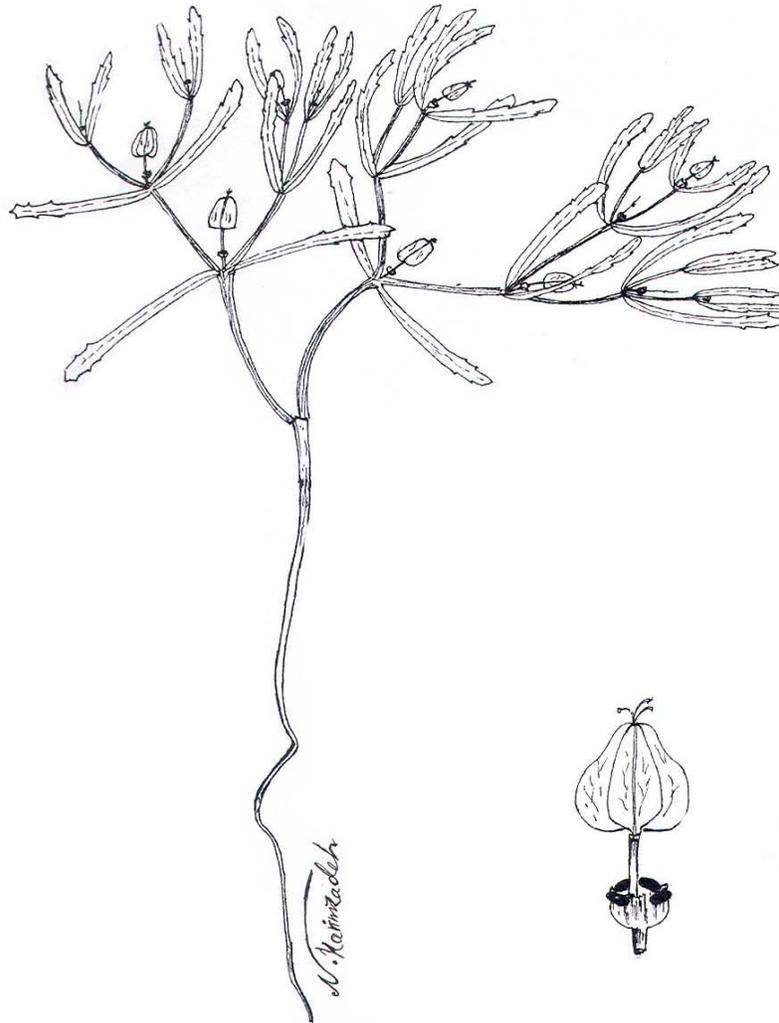


Fig. 1. *Euphorbia grossheimii* ($\times 0.85$); details ($\times 3.2$).

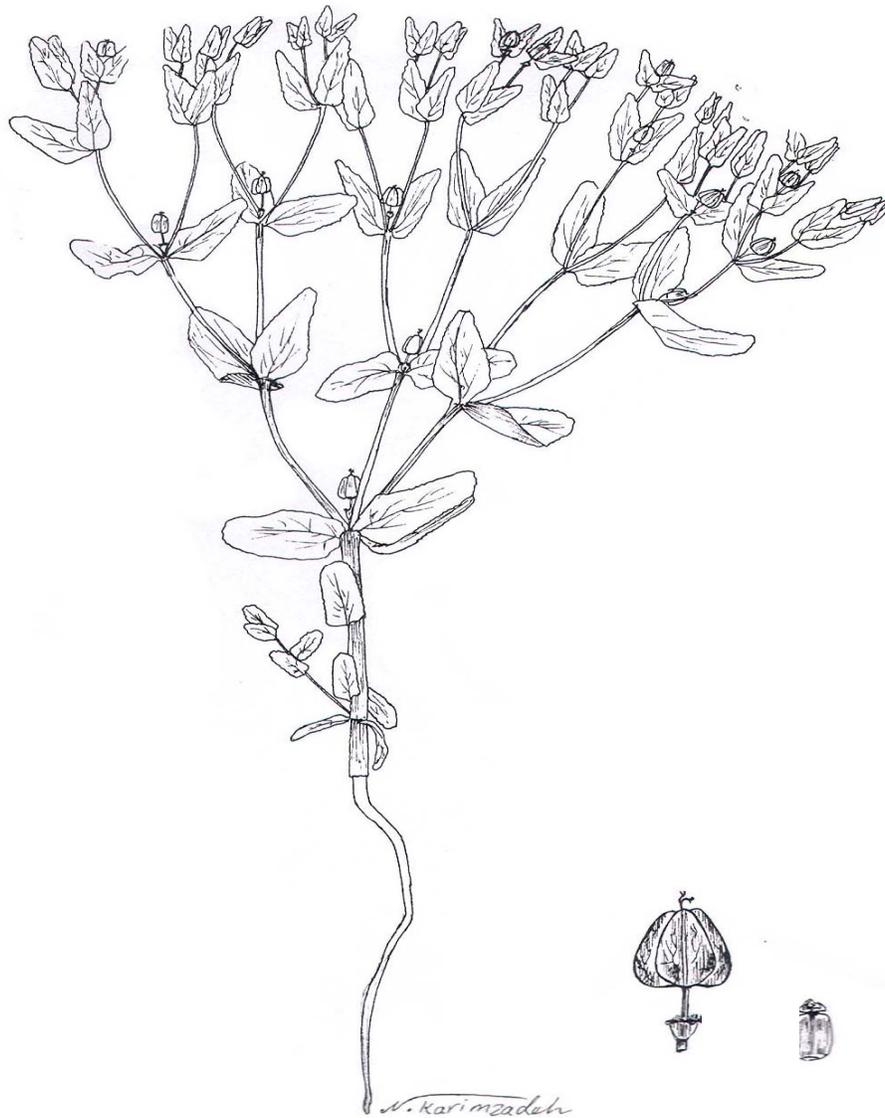


Fig. 2. *Euphorbia turkestanica* ($\times 0.85$); details ($\times 3.2$).