

Euphorbia granulata Forssk. (Euphorbiaceae): A new distributional record for the Marathwada region of Maharashtra, India

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Abstract

The present paper deals with a new addition of taxa of flowering plant for the Marathwada region of Maharashtra, India. Updated information on nomenclature, correct description and locality is provided. This is a new additional record for this area.

Keywords: *Euphorbia granulata*; Euphorbiaceae; new distributional; Marathwada region; Maharashtra

1. Introduction

Euphorbia is a very large and diverse genus of flowering plants, commonly called spurge, in the family Euphorbiaceae. "Euphorbia" is sometimes used in ordinary English to collectively refer to all members of Euphorbiaceae, not just to members of the genus (1).

Euphorbias range from tiny annual plants to large and long-lived trees, (2) with perhaps the tallest being *Euphorbia ampliphylla* at 30 m (98 ft) or more, (3 and 4). The genus has roughly 2,000 members (5 and 6), making it one of the largest genus of flowering plants (7). It also has one of the largest ranges of chromosome counts, along with Rumex and Senecio (8). *Euphorbia antiquorum* is the type species for the genus *Euphorbia* (9). It was first described by Carl Linnaeus in 1753 in *Species Plantarum*.

Worldwide distribution of *Euphorbia granulata* Forssk is from Africa East Tropical Africa Kenya, Tanzania, Macaronesia Canary and Cape Verde. Northeast Tropical Africa Chad, Djibouti, Eritrea, Ethiopia, Socotra, Somalia, Sudan, Northern Africa Algeria, Egypt, Libya, Morocco, Tunisia, Western Sahara, West Tropical Africa Mali, Mauritania and Niger. Asia-Temperate Arabian Peninsula Oman, Saudi Arabia, Yemen, Caucasus Transcaucasus, China Xinjiang. Middle Asia Kazakhstan, Kirgizistan, Tadjhikistan, Turkmenistan and Uzbekistan. Western Asia Afghanistan Iran, Iraq, Lebanon-Syria, Palestine, Sinai. Asia- Tropical Indian Subcontinent Bangladesh, India and Pakistan (10).

2. Material and methods

During the floristic survey of Nanded District of Marathwada region, Maharashtra State, India, the plants of interest including the members of Euphorbiaceae were collected. During explorations the focus has been given on the species of *Euphorbia*. All available species of *Euphorbia* were brought to the laboratory and identified with the help of available flora and other literature, while going through the cross examination with the other species of *Euphorbia*, the specimen identified as *Euphorbia granulata* Forssk. Scrutiny of literatures revealed that this species has been so far reported from

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Gujarat, Uttar Pradesh and Uttar Pradesh states from India (11). The critical revise of this specimen and pertinent literatures (12, 13, 14, 15, 16, 17, 18, 19, 20) and (21). Exposed that the identity of the specimen as *E. granulata* Forssk.

3. Results and discussion

3.1. Taxonomic Description

Herb ephemeral, 6-13 cm tall; indumentum with very short stiff erect hairs. Root fibrous, 0.5-3 mm thick. Stems usually unbranched, occasionally branched at end, usually woody at base, many from base, ascending or prostrate, 2-3 mm thick, internodes conspicuous, glabrous or pilose. Leaves opposite; stipules persistent; petiole extremely short; leaf blade subelliptic, 3-6 × 2-4 mm, glabrous on both surfaces or subglabrous, base extremely obliquely auriculate, margin entire or serrulate, apex rounded. Cyathia single, axillary, peduncle almost absent; involucre turbinate, ca. 1.5 × 1.5-2 mm, white pilose, marginal lobes 5, very small, subtruncate; glands 4, appendages white and unequal, narrow adaxially, but wider than glands abaxially, ca. 2-4 × as wide as gland, irregular, concave or repand. Male flowers many, usually not exerted. Female flower: pedicel long, exerted from involucre; ovary pilose or not; styles very short; stigma ± 2-lobed. Capsule 3-angular, ca. 1.5 × 1-1.5 mm, smooth, sometimes pilose. Seeds tetragonal, ca.



Figure 1 Habit and flower of *Euphorbia granulata* Forssk

- Flowering & Fruiting: January
- Distribution: The native range of this species is N. & E. Africa, SW. & Central Asia to Indian Sub- continent.
- Specimens Examined: Campus area of SRTMU Nandeds Late Shri Uttamrao Rathod Tribal Development and Research Center Kinwat District Nanded Maharashtra State, India.
- G. P. S. Location: N “19.5972980, E 78.2080570
- Collected by: E. Srinivas Reddy on dated 8 th January 2016. (Voucher No. 258).

3.2. Medicinal uses

The latex is used internally to expel intestinal worms, and externally to treat snakebites and scorpion stings. In Saudi Arabia the latex is taken as a purgative, anthelmintic and diuretic, as well as for its blood purifying properties

4. Conclusion

On site studies are necessary to validate the pharmacological properties of the *Euphorbia granulata* Forssk and its potential therapeutic applications.

Compliance with ethical standards

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