

## NOTE ON EXTENDED DISTRIBUTION OF *TAGETES MINUTA* (ASTERACEAE) TO THE STATE OF MAHARASHTRA

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### ABSTRACT

The Present communication reports the occurrence of *Tagetes minuta* L. (Asteraceae), in the state of Maharashtra. *Tagetes minuta* L. is species native to South America. This communication provides detailed description, phenology and photographs of the taxa to facilitate identification.

**Keywords:** Asteraceae, distribution, Maharashtra, New addition, *Tagetes minuta*

### INTRODUCTION

*Tagetes minuta* L. (Asteraceae) the wild or Mexican marigold or Khaki Weed is native to South America (K.M. Matthew 1999). Additionally, it was brought to Europe (Jordano and Ocano, 1955), Africa (Hillard, 1977), Asia (Cherpanav, 1981), Australia (Webb, 1948), and India (Rao *et al.*, 1988). According to reports from 1922, this species was being grown at the Forest Research Institute's Garden in Dehra Dun and also occurs in some parts of the North West Himalayas (George *et al.*, 1893). Recently it has also been introduced in some parts of Himachal Pradesh, Meghalaya, Nagaland, Sikkim and Uttar Pradesh (Maheshwari 1972; Kumari Bandana *et al.*, 2004). During recent botanical exploration in the Dari-Matori and the adjoining areas of Nashik city, in the state of Maharashtra, some specimens of *Tagetes* were collected. After referring to the key from the relevant literature (Rao *et al.*, 1988), the specimens have been confirmed as *T. minuta* L. This forms a new addition to the flora of the state of Maharashtra. Detailed description, distribution, ecology, and colour photo plate are provided to facilitate identification.

***Tagetes minuta*** L., Sp. Pl. 887. 1753; Maheshwari in J. Bombay Nat. Hist. Soc. 69:451. 1972. Fig. 1 Lectotype: (vide Delgado-Montano 1998: 368): [icon] "*Tagetes multiflora*, minuto flore albicante" in Dillenius, Hort. Eltham.: t. 280, f. 362. 1732).

Large, annual, and strong aromatic herbs, stem erect, woody, grooved, or rigid, initially green but later mature to brownish or reddish; usually branched only on the upper side, 1-2 m tall. Leaves slightly glossy green, pinnately compound, leaflets 9-17, linear-lanceolate, sharply serrate margins, with orange conspicuously gland-dotted under-surface of leaf. Head numerous, usually flat-topped cymes at the end of branches. Involucre cylindrical or long tube, yellowish green, 8-14 mm high x 2-3 mm wide, apex 3-5-toothed; florets obscure, extending only 1-2 mm out of Involucre, ray florets usually 3-4 per head, 1-2 mm long, yellow; disk florets usually 3-5 per head, corollas white; pappus consists of 3-5 unequal awn-like scales; achenes, hairy, cylindrical, dark brown to black, 6-8 mm long.

**Phenology:** September – December.

**Distribution in India:** Himachal Pradesh, Karnataka, Maharashtra (current report) Meghalaya, Nagaland, Sikkim, Uttar Pradesh.

**Ecology:** The taxa is sporadically found in Road-side, rocky hills, and cropland and is a troublesome weed in maize, barley, cotton crops, etc in surrounding field. (Singh *et al.* 2003). We also found that it

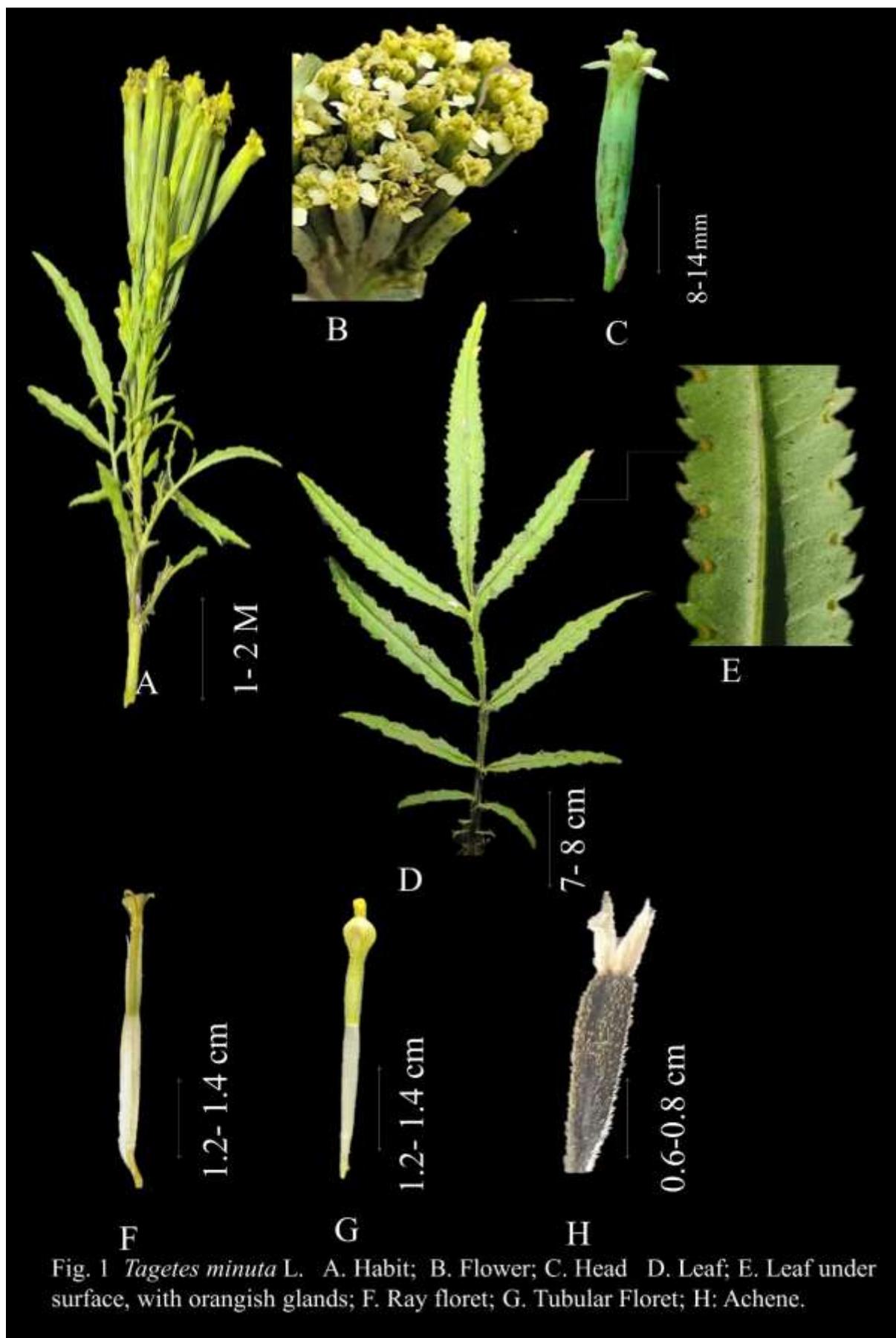


Fig. 1 *Tagetes minuta* L. A. Habit; B. Flower; C. Head D. Leaf; E. Leaf under surface, with orangish glands; F. Ray floret; G. Tubular Floret; H: Achene.

grows as a common road-side weed along Mungsare-Chandshi. It has been assessed as an invasive weed by Sadia et al. (2013).

**Economic importance:** *Tagetes minuta* has been widely cultivated around the world due to its pharmacological properties and agrochemicals (Singh et al., 2003). “*Tagetes* oil” has unique biological activity and is used as an agrochemical, food, and colorant nutritional supplement, and in the cosmetic industry (Prasad et al., 2003). *Tagetes minuta* acts as an effective insect repellent, nematicide, and biofumigant due to its allelopathic compounds, which suppress soil nematodes and weeds, enhancing crop protection in fields. (Walia and Kumar, 2020)

**Specimen examined:**

India, Maharashtra, Nashik district, Mungsare-Chandshi Road, 01 December, 2024 S.S. Shinde 01 (Deposited in Herbarium, Department of Botany, K.T.H.M. College, Nashik).

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