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Turnera subulata Sm. (Passifloraceae): A species new to the flora of Odisha, India

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ABSTRACT

Turnera subulata Sm. (Passifloraceae) is reported here as a new distributional record for the state of Odisha, India. A detailed note on the nomenclature, botanical description, phenology, ecology and distributional of this species is provided in this paper.

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The genus *Turnera* L. with about 140 species belongs to the family Passifloraceae (APG III, 2003) and members of the genus are distributed mainly in the Tropical America and Africa (Thulin *et al.* 2012). Among these, *Turnera ulmifolia* and *T. subulata* have been reported from Peninsular India (Gamble 1935; Manilal and Sivarajan, 1982; Srinivasan 1983; Tripathi, 1993) and only one species such as *Turnera ulmifolia* L. is known to occur in Odisha (Saxena and Brahmam, 1995). During the botanical exploration of Khurda District, Odisha, we have collected some interesting specimens of the genus *Turnera* L. from Bhubaneswar. On critical examination of plant specimens and consultation of pertinent literature (Srinivasan, 1983; Kumar, *et al.*, 2000), it was identified as *Turnera subulata* Sm. Perusal of literature revealed that the species has so far not been reported from Odisha (Saxena and Brahmam, 1995). Thus, occurrence of *Turnera subulata* in Bhubaneswar is a new distributional record for the flora of Odisha state. The species is enumerated herewith with brief description, notes on distribution, phenology, taxonomical notes. Besides, field

photographs are provided here to facilitate easy identification. The voucher specimens have been deposited in the Herbarium of Regional Plant Resource Centre (RPRC), Bhubaneswar, Odisha, India.

Turnera subulata Sm. in Rees, Cycl. 36: no. 2. 1817; Baker in Steenis, Fl. Males. 4 236 1951; Srinivasan, in Nair and Henry, Fl. Tamil Nadu, India 1 169 1983; Mohan and Henry, Fl. Thiruvananthapuram 206 1994. *Turnera elegans* Otto in Nees, Hort. Phys. Berol 36 1820. *Turnera ulmifolia* L. var. *elegans* (Otto) Urban, Monogr. Turn. 139 1883; Gamble, Fl. Pres. Madras 1 523 1935; Matthew and Britto in Matthew, Fl. Tamil Nadu Carnatic 1 627 1983. **Fig.1**

Annual, erect large herbs, up to 60 cm in height; branchlets slender, densely clothed white hairs, ascending highly branched. Leaves simple, alternate; elliptic-obovate, 4-7× 2-3 cm long, base cuneate or decurrent; margin serrate, apex obtuse or acute, pubescent, base one pair of gland-dotted; lateral nerves 7 pairs. Petiole 1.2 cm long, slender, pubescent. Inflorescences solitary in leaf base, axillary.

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Flowers bisexual, 5-merous; bracteolate, one pair, linear, 1 cm long. Pedicel 8mm long, adnate partially or totally to the petiole. Calyx valvate, companulate, 1.5 cm in diameter, pubescent, base united; calyx-lobes lanceolate, each lobe, 1 cm long, pubescent, margin entire, apex obtuse with a pointed mucro, 2-4 mm long. Corolla 5 free, twisted to left, 1.5-3 cm in diameter, pale yellowish white, basal bluish black spot, 5 lobed; corolla lobes, widely obovate, each lobe, 2.2 cm long, glabrous. Stamens 5, connate at base calyx- tube; filament 7 mm long, glabrous; anther yellow, 3-6 mm long, basifixed. Ovary tricarpel, ellipsoid, glabrous, 2-5 mm long; style 3, free, 6 mm long, glabrous; stigma plumose, bright yellow.

Flowering: June – August *Fruiting:* Not observed.

Distribution: Native of Tropical America and naturalized all over the country. INDIA (Almost all states).

Specimens examined: INDIA, Odisha State, Khurda District, Bhubaneswar, VIP colony, N20°18'789'' E085°40'366'', ±102 MSL, 06. 08. 2016, *Kalidass & Murugan* 9498 (RPRC).

It is commonly found in moist and the road side,

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Fig. 1 *Turnera subulata* Sm. (Passifloraceae): A. habit, B. flowering twig