

# FUTTEYPORE STAR CHESTNUT

*Melhania futteyporensis* (Sterculiaceae): a new record for the flora of Haryana, India



*Melhania futteyporensis*

**Plantae**

(Plant Kingdom)

**Tracheophyta**

(Phylum of Vascular plants)

**Malvales**

(Order of Dicotyledonous flowering plants)

**Sterculiaceae**

(Family of Star Chestnut)

***Melhania futteyporensis***

(Futteypore Star Chestnut)

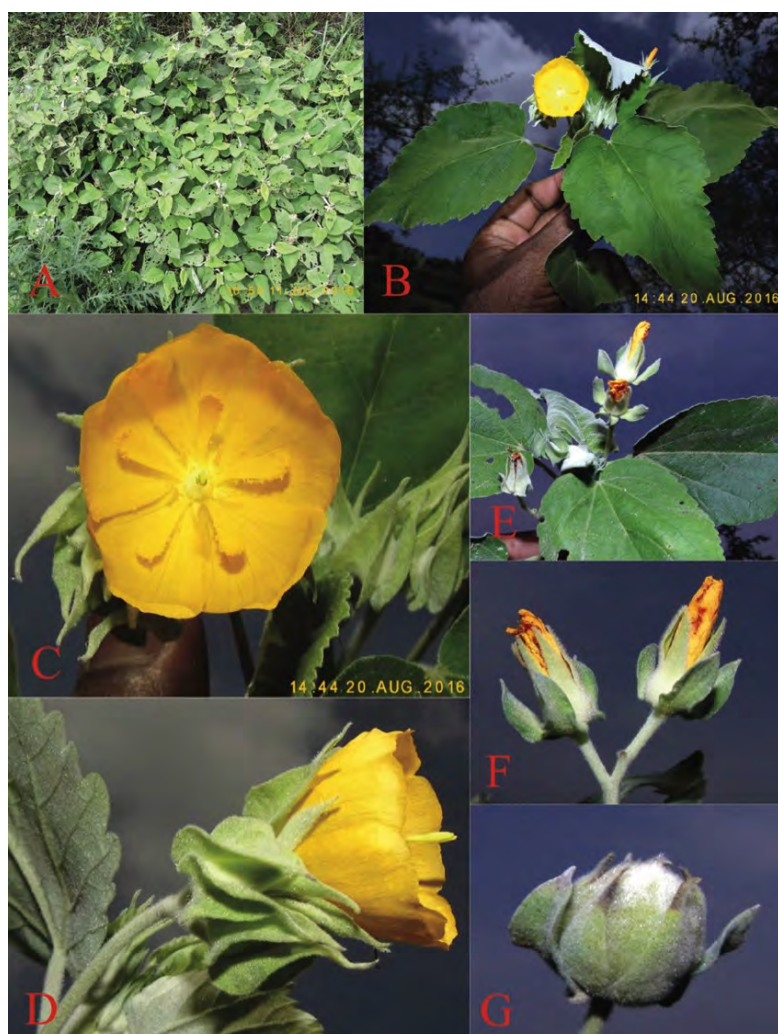
Species described by Munro ex Masters in 1874

*Melhania* Forssk. (Family: Sterculiaceae) comprises of ca. 50 species (Mabberley 2008) distributed in Asia, Africa and Australia. The genus comprises of hoary herbs or sub-shrubs; inflorescences axillary or terminal cymes, 1-4 flowered; 3 involucral bracts which are usually larger than or equal to sepals, accrescent; 5 basally connate sepals; 5 yellow to orange-yellow membranous petals; 5 stamens which alternate with 5 ligulate staminodes; ovary 5-loculed, ovules 2-many per locule; style long; stigmatic branches 5; fruits 5-valved capsules; seeds 10-20, usually 4, may be tubercled or smooth. In India, the genus is represented by total seven species, including the three endemics namely *M. cannabina* Wight ex Masters (Karnataka and Tamil Nadu), *M. hamiltoniana* Wall. (Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh) and *M. magnifolia* Blatt. & Hallb. (Gujarat, Maharashtra, Punjab and Rajasthan). Other four species of the genus are *M. futteyporensis* Munro ex Masters (reported from Delhi, Gujarat, Punjab, Rajasthan, Uttar Pradesh extended upto Pakistan); *M. tomentosa* Stocks ex Masters (reported from

Gujarat, Maharashtra, Punjab and Rajasthan extended upto Pakistan); *Melhania incana* Heyne ex Wight & Arn. (reported from Andhra Pradesh, Karnataka, Kerala, Tamil Nadu extended to Australia) and *M. denhramii* R. Br. (reported from Rajasthan, Arabia and Pakistan, also extended to tropical Africa) (Anamma et al. 2014).

### Observations

During present study, the plants of *Melhania* Forssk. have been collected from three different places in southern Haryana, namely Madhavgarh, Block Satnali, District Mahendragarh, a part of Aravalli Hills (28°18'7.7"N & 76°2'29.9"E); Dhosi Hills, Narnaul, District Mahendragarh (28°3'34.8"N & 76°2'9.6"E), again foothills of Aravalli and from near village Bapora (28°50'0.4"N & 76°2'26.6"E), district Bhiwani, nearly 10km away from Bhiwani City. Based on literature, by comparing the digital images as well as herbarium specimens, the material was identified as *Melhania futteyporensis* Munro ex Masters, hitherto not reported from the state of Haryana, thus forming a new record for the flora of Haryana State. It was observed that only one or two individuals are growing at its place of



A-G *Melhania futteyporensis* Munro ex Masters  
A - Habit; B - Leaves; C - Top View; D - Flowers side view  
Close up; E - Flowering bud; F - Bracts; G - Capsule

occurrence except for one locality in Bhiwani District, where 15–20 individuals were found aggregated. This plant has not been seen at any other place of survey covering five districts of south Haryana. Neither there is any report of finding it anywhere in Haryana, as per the published works on flora of Haryana (Jain et al. 1982; 2000; Kumar 2001).

This taxon was earlier described from Indian sub-continent and was known to occur in north-western drier parts of India which include Delhi, Gujarat, Punjab, Rajasthan and Uttar Pradesh (Hooker 1872–1897) along with Baluchistan, Sind and Pakistan. Also reported from Punjab, Delhi, Uttar Pradesh, Rajasthan and Gujarat, as per the online Flora of India, published by Botanical Survey of India (BSI 2014).

Maheshwari (1963), has quoted that “I have not seen this plant in field, Falconer is the one (in Duthie) who collected from Delhi” making it clear that this plant is not common to see in the field. Recently, this species has also been reported from southern India (Anamma et al. 2014).

## Description

*Melhania futteyporensis* Munro ex Masters in Hook. f., Fl. Brit. India 1: 373, 1874; Duthie, Fl. Upp. Gangetic Plain 1: 106. 1903; Bamber, Pl. Punjab: 74, 1914; R.N. Parker, Forest. Fl. Punjab: 47, 1918; *M. tomentosa* Stocks ex Masters var. major Blatt. & Hallb. in J. Bombay Nat. Hist. Soc. 26: 228, 1918; *M. futteyporensis* Munro ex Masters var. major (Blatt. & Hallb.) Santapauin J. Bombay Nat. Hist. Soc. 56: 278.1959; Maheshwari, Fl. Delhi 85, 1963; B.V. Shetty & V. Singh, Fl. Rajasthan 1: 141, 1987; K.C. Malickin B.D. Sharma et al., Fl. India 3: 438, 1993. Type: India, Fatehpur Sikri, Sept. 1843, Munro No. 258, K (K00067 1882, Hook. herb.)

A small sub-shrub, 40–70 cm high, coarsely pubescent, stems terete. Leaves simple, 5-7-costate, ovate or broadly ovate-lanceolate, ca. 15×7

cm, velvety on both sides, crenate-serrate, base cordate, apex acute to sub-acuminate; petioles hairy, up to 3 cm long; stipules brown, setaceous. Flowers in 2–4-flowered axillary or terminal, shortly-peduncled cymes, bright yellow, showy, 1.5–2 cm across, pedicellate, peduncle and pedicel both pubescent, pedicel elongating in fruit; involucre bracts 3, ovate, ca. 2×1 cm, slightly exceeding or equaling the sepals, acuminate at apex, pubescent, accrescent. Sepals 5, connate at base, ovate-oblong, apex acuminate, glabrous on inner side, persistent. Petals 5, yellow, oblique, obovate, membraneous; fertile stamens 5, ca. 0.8–1.0 cm long, alternating with staminodes, staminodes 5, exceeding the fertile stamens in length, ca. 1.5–2.0 cm, fimbriate. Ovary sub-globose, villous, with 5 locules; capsules oblong to subglobose, villous, minutely beaked, villous. Seeds angular, 2–4 in each locule, muricate, angled, brown to black. (Image 1).

**Habitat:** Rocky, dry habitats of plains or lower hills, usually in sandy soils.



**A - Image of type material (© copyright of the Board of Trustees of the Royal Botanic Gardens, kew); B - Image of Collected specimen**

**Flowering and Fruiting:** May–October; in present study flowers and fruits have been observed in July as well as in August.

**Specimens examined:** India: Haryana, Madhavgarh, Aravalli Hills, Mohan Lal (Department of Botany, Kurukshetra University Kurukshetra, Haryana, KUK-Lal-017, 11.viii.2016); India: Haryana, Dhosi Hills of Aravalli Mohan Lal (KUK-Lal-036, 20.viii.2016); India: Haryana, village Bapora, District Bhiwani, Mohan Lal (KUK-Lal-053, 20.viii.2016). Image 2 is a comparative image which shows the type specimen collected by the original author vis-à-vis the specimen collected by the author of this paper (Kew 2018).

Diagnosis of seven Indian *Melhania* species is provided by Anamma et al. 2014. As this species can be closely allied to *M. hamiltoniana*, distinguishing characteristics between *M. futteyporensis* and *M. hamiltoniana* is being provided here, based on Anamma et al., 2014:

- 1a. Staminodes pointed; seeds 4 to many in each locule.....*M. hamiltoniana*  
1b. Staminodes obtuse; seeds 2–4 in each locule.....*M. futteyporensis*

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#### Mohan Lal<sup>1</sup>, Nidhan Singh<sup>2</sup> & B.D. Vashistha<sup>3</sup>

<sup>1&3</sup> Department of Botany, K.U. Kurukshetra, Haryana 136119, India

<sup>2</sup> I.B. (PG) College, GT Road, Panipat, Haryana 132103, India

Email: <sup>2</sup>nidhansinghkuk@gmail.com (Corresponding author)

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