

NOTES ON *ABELMOSCHUS MANIHOT* (L.) MEDIK. SSP. *TETRAPHYLLUS* (ROXB. EX HERNEM.) BORSS. VAR. *MEGASPERMUS* HEMADRI AND *MANISURIS DIVERGENS* (HACK.) O. KTZE. AND THEIR DISTRIBUTION

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ABSTRACT

In the present paper, a variety *megaspermus* of *Abelmoschus manihot* has been fully described in absence of its detailed description alongwith the key of all its 3 varieties and another species *A. ficulneus*. Also, *Manisuris divergens* has been recorded for Kerala.

1. *Abelmoschus manihot* (L.) Medik. ssp. *tetraphyllus* (Roxb. ex Hernem.) Borss. var. *megaspermus* Hemadri Bull. Bot. Surv. India 11: 338. 1971 (1972).

Hemadri (*l.c.*) described this variety based on collections from Maharashtra and Gujarat. In the above publication he provided only diagnostic characters. Hence, it is appropriate to present a full description of this taxon based on the type materials.

Erect ascending, woody herbs up to 0.75 m high. Stem sparsely stiff hairy. Leaves entire shallowly or deeply 3-7-lobed or angled. Flowers axillary, solitary or subracemose towards branch-endings. Epicalyx (4-) 5 (-6), ovate-lanceolate, free, distantly arranged, usually unequal in size, 0.5 - 2 (-2.5) × 0.3 - 0.6 (-0.8) cm, caducous or one or two persistent in fruits. Calyx spathaceous, deciduous. Corolla 3.5 - 5 cm long, 4 - 5.5 cm across, yellow with purple centre, fading to pale pink. Capsule 2.5 - 4 × 1.52 cm, 5-angled, setose, loculicidal. Seeds many, subglobose, 4-5 mm across, densely clothed by short, yellowish-brown hairs in regular lines.

Flowering and fruiting: October-January.

Vernacular names: Ran bhendi, Jangli bhendi.

The plant is frequently met with in the shady hill slopes and also along cultivated fields at foot hills and is so far recorded only from Maharashtra and Gujarat. Its mention from Andhra Pradesh in the original publication (Hemadri 1972) is due to misidentification of a poor specimen of *Abelmoschus ficulneus* (Linn.) Wt. et Arn.

The var. *megaspermus* Hemadri can be easily distinguished from var. *tetraphyllus* which also grows along the Western ghats, by its smaller, ovate-lanceolate distant and caducous (4-) 5 (-6) epicalyx and bigger seeds. The var. *tetraphyllus* has always 4, over-lapping, large and broadly ovate, somewhat cordate, persistent epicalyx and smaller seeds about 3 mm across.

The var. *megaspermus* also resembles var. *pungens* (Roxb.) Hochr. but can be distinguished by its smaller corolla, epicalyx and almost globose seeds. The seeds of var. *pungens* are reniform with broad sinus.

Abelmoschus ficulneus (L.) Wt. et Arn. which is common in South India, though

resembles *Abelmoschus manihot* ssp. *tetraphyllus* var. *megaspermus* can easily be distinguished by its 5-fid calyx and smaller seeds of about 3 mm in diam.

A dichotomous key to identify the species and varieties involved in the present study is provided here.

KEY TO THE SPECIES & VARIETIES

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|---|--|
| 1. Calyx 5-fid .. | <i>A. ficulneus</i> |
| 1. Calyx entire : | |
| 2. Seed reniform with broad sinus .. | <i>A. manihot</i> ssp. <i>tetraphyllus</i> var. <i>pungens</i> |
| 2. Seed almost globose : | |
| 3. Bracteoles (epicalyx) 4 in number, broadly ovate-cordate, overlapping and persistent ; seeds 3 mm across .. | var. <i>tetraphyllus</i> |
| 3. Bracteoles (epicalyx) (4-) 5 (-6) in number, ovate-lanceolate, distantly arranged and caducous ; seeds 4-5 mm across | var. <i>megaspermus</i> |

Recently, the present writers separated three specimens collected from Madhya Pradesh (two sheets of *K. M. Sebastine* 15514, Kundwara, Jabulpore district, dated 23.12.1962 and one sheet of *J. Joseph* 13514, Khari R. F., Mandla district, dated 30.11.1961, misidentified as *Hibiscus tetraphyllus* Roxb. and *H. manihot* Linn. respectively) and deposited at MH. These represent undoubtedly var. *megaspermus* Hemadri. These records therefore extend the distribution of var. *megaspermus* Hemadri from Gujarat and Maharashtra to the adjoining state of Madhya Pradesh.

2. ***Manisuris divergens*** (Hack.) O. Ktze., Rev. Gen. Pl. 2: 779. 1891; Jain in Bull. Bot. Surv. India 9: 293. 1967 (1968) et 12: 10. 1970 (1972). *Rottboellia divergens* Hack. Monogr. Andropog. in DC. Monogr.

Phan. 6: 292. 1889. Type: "Asia (Versimilitar Ind. Or.)", (in the hills east of Bombay) *Huegel* s. n. (W).

This is a small, erect, tufted annual grass about 10-17 cm high including the terminal narrow spikes, and is found in open grassy areas at higher elevations. Jain (*l. c.*) reported it from Mercara, on way to Abbi falls in Karnataka based on *A. S. Rao* 94909, dated 20th October 1963 (BSI) after thirteen decades of its first collection by *Huegel*.

Later, Hemadri found a specimen of this grass mixed with *Arthraxon villous* Fischer collected by Dr. R. S. Raghavan (BSI) from Bababudan Hills, Karnataka.

While examining the collections of *Manisuris* in MH, it was found in the folder of *M. acuminata* (Hack.) O. Ktze., a specimen of *Manisuris*, *K. Cherian Jacob* 20243, collected from Peermade, 975 m, Travancore on 3rd December 1941. On close examination it is seen that the grass is *Manisuris divergens* (Hack.) O. Ktze. and not *M. acuminata*. *M. divergens* thus extends its distribution from 'the hills east of Bombay' to further south in Kerala along the Western ghats.

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