



***ASYSTASIA MYSORENSIS* (ROTH)  
T. AND.: AN ADDITION TO  
THE FLORA OF RAJASTHAN, INDIA**

**K. L. MEENA**

*Herbarium and laboratory of plant taxonomy,  
Department of Botany,  
MLV Government College, Bhilwara - 311 001, Rajasthan, India  
e- mail ID : kanhaiyameena211@yahoo.com*

*Asystasia mysorensis* (Roth) T. And. of family Acanthaceae, has so far not been reported from Rajasthan and thus is being reported for the first time. In India, this genus is represented by eight species. The detailed description, up to date nomenclature, time of flowering - fruiting, ecological notes, photographs of the species have been presented in the paper.

**Key words:** *Asystasia mysorensis*, Acanthaceae, New record, Rajasthan, India.

Rajasthan is the largest State of India, occupying an area of about 3,48,861 sq. km i.e. nearly 11 percent of the total area of India. It forms the eastern extremity of the great arid and semi-arid belt of the world. During botanical explorations in southern Rajasthan, the author collected some plant specimens from Kushal Garh (23°10' N Latitude and 74°27' E Longitude) in Banswara district of Rajasthan. After a thorough survey of literature (Moorthy 2001; Khanna *et al.*, 1997), critical examination and expert opinion from Botanical Survey of India, Arid Zone Regional Centre, Jodhpur, these specimens were determined as *Asystasia mysorensis* (Roth) T. And., belonging to the family Acanthaceae, a taxon not recorded by the earlier workers from Rajasthan (Bhandari 1987, Sharma and Tyagi 1979, Shetty and Pandey 1983, Singh 1983, Shetty and Singh 1991, Prasad *et al.* 1996, Sharma 2002, Tiagi and Aery 2007, Meena 2010a, b, 2013a, b, c, 2014a, b, Meena and Yadav 2010, Yadav and Meena 2011). Recently, Meena (2013d) have further added to our knowledge about the Acanthaceae flora from Sitamata wildlife sanctuary and reported 20 species from southern Rajasthan. But *Asystasia mysorensis* (Roth) T. And. has not been reported so far from Rajasthan. Thus, the present paper provides description, phenology data and Photographs are to facilitate its easy identification in the field.

The genus *Asystasia* Blume, was established by Blume in 1826. This genus consists of 70

species distributed in the tropical region of old world mostly in Africa (Khanna *et al.* 1997; Mabberbey 1997). The species has been reported from Maharashtra and Madhya Pradesh by Moorthy (2001) and Khanna *et al.* (1997). In India this genus has been represented by 8 species (Samvatsar 1996). During the recent floristic survey of the Banswara, author came across one interesting plant specimen of *Asystasia mysorensis* (Roth) T. And. The report of its occurrence from the Rajasthan is the first report for western India. Thus, present findings constitute a new record for Rajasthan and extends its distribution in India.

**ENUMERATION:**

*Asystasia mysorensis* (Roth) T. Anderson in J. Linn. Soc. Bot. 9: 524. 1867; Santapau in Kew Bull. 1948: 276. 1948; Sant. in Univ. Bombay Bot. Mem. 2: 68. 1952; Khanna *et al.*, in Mudgal *et al.*, Fl. Madya Pradesh 2: 289. 1997; Moorthy in Singh *et al.*, Fl. Maharashtra 2: 596. 2001. *Ruellia mysorensis* Roth, Nov. Pl. Sp. 303. 1821. *Asystasia lawiana* Dalz. in Hook Kew J. Bot. 4: 344. 1852; C.B. Clarke in Hook. f., Fl. Brit. India 4: 496. 1884; Cooke, Fl. Pres. Bombay 2: 467. 1958 (Repr.). (Fig. 1 A-G)

Erect annual herb, up to 1 tall. Stem quadrangular, grooved, shortly hairy. Leaves simple, petiolate, entire, 3 - 10 X 2.5 - 5 cm, elliptic- oblong, base acute, apex acute to acuminate, roughish above, hairy on upper nerves, lower nerves densely hairy. Inflorescence terminal spike, up to 5 cm long.

Flowers sessile, white, shorter than bracts, 2-5 cm long, 2-lipped, upper lip 4-lobed, lower one unlobed. Bracts enclosing flower, 1-2 X 0.5 cm, lanceolate, large, acute, exceeding 10 mm, green, 3-nerved, hairy. Bracteo les lanceolate. Calyx lobes 5, linear, upto 1 cm long, equal, pubescent. Corolla tubular, sub-equal, up to 2 cm long, 2-lobed, upper lobe again 2-lobed, lower one 3-lobed, imbricate in bud. Stamens 4, subsimilar; anther-cells one a little below the other, minutely mucronate at the base. Ovary superior, bi-celled, hairy; style slender; stigmas 2. Capsule 1.3 - 2 cm long, 1-4 seeded, glandular-pubescent, opening with 2 valves. Seeds angular, obliquely ovoid, flat, compressed with dentate margins, faces tuberculate with hexagonal areolae along edges.

**Flowering and Fruiting:** September-December.

**Ecological notes:** Rare in moist wastelands, amidst grasses on exposed dry slopes. It is used as fodder to goat. At the beginning of rainy season leaves and young shoots are consumed as the substitute of green vegetables.

**Specimens examined:** India, Rajasthan, Banswara district, KushalGarh, 29 October 14, MeenaM-742 (Herbarium, department of botany, M.L.V. Government College, Bhilwara).

**Distribution:** Africa, (from Ethiopia and Eritrea to Namibia and South Africa) and India (Madhya Pradesh and Maharashtra).

Author is grateful to the Dr. Vinod Maina,



Figure 1. (A-F): *Asystasia mysorensis* (Roth) T. Anderson. A. Habitat, B. Habit, C. Inflorescence, D. Corolla lobes and stamens, E. Capsule F. Dehiscent capsule, G. Seeds

Scientist & Add. Director BSI, Jodhpur and Dr. S. L. Meena Scientist BSI, Jodhpur for confirmation of the identity of specimens, valuable suggestions and deposition of specimens to the Botanical Survey of India, Arid Zone Regional Centre, Jodhpur. I am also grateful to Dr. B. L. Yadav, Department of Botany, MLV Govt. College, Bhilwara for valuable critically going through the manuscript and providing facilities. I am also grateful to Dr. J. P. Gupta, Head department of Botany, MLV Govt. College, Bhilwara for encouragement. Thanks are also due to Principal and Vice Principals of MLV Government College, Bhilwara for providing the laboratory facilities. Financial assistance provided by UGC New Delhi, is gratefully acknowledged.

#### REFERENCES

- Bhandari MM 1987 *Flora of the Indian Desert*. MPS Repros, Jodhpur.
- Khanna KK, Tripathi AK and Mudgal V 1997 Acanthaceae. In: *Flora of Madhya Pradesh* vol II. Eds Mudgal V, Khanna KK & Hajra PK BSI, Calcutta.
- Mabberley DJ 1997 *The Plant Book*. 2nd. ed. Cambridge University Press, Cambridge, UK.
- Meena KL 2010a *Morinda coreia* Buch.-Ham.: A new record to the flora of Rajasthan. *J Indian bot Soc* **89** (1-2) 210 - 212.
- Meena KL 2010b *Synedrella vialis* (Less.) A. Gray: A new record to the flora of Rajasthan. *J Econ Taxon Bot* **34** (3) 614 – 618.
- Meena KL 2013a Some New Records to the Flora of Rajasthan, India. *The Journal of Biodiversity. Photon* **112** 233-240.
- Meena KL 2013b *Blumea malcolmii* (C.B. Clarke) Hook. f., A new Record to the Flora of Rajasthan India. *J Econ Taxon Bot* **37** (1) 53 - 55.
- Meena KL 2013c *Tagetes minuta* L. (Asteraceae): A newly naturalised plant in Rajasthan, India. *J Econ Taxon Bot* **37** (2) 415 - 418.
- Meena KL 2013d. Diversity of family Acanthaceae from Sitamata Wildlife Sanctuary, Rajasthan, India. *J Econ Taxon Bot* **37** (3) 595 - 609.
- Meena KL 2014a *Flora of Wildlife Sanctuary*, Discovery Publishing House Pvt. Ltd., New Delhi.
- Meena KL 2014b Rediscovery of *Cullen corylifolium* (L.) Medik. (Fabaceae) from the Malwa region, India. *The Journal of Biodiversity Photon* **113** 360-363.
- Meena KL and Yadav BL 2010 *Spigelia anthelmia* L. (Spigeliaceae): A New Generic Record to the Flora of Rajasthan. *J Indian bot Soc* **89**(3-4) 258 - 261.
- Moorthy S 2001 Acanthaceae In: *Flora of Maharashtra* vol II. eds Singh NP, Lakshminarasimhan P, Karthikeyan S and Prasanna PV BSI, Calcutta.
- Prasad VP, Daniel M, Joy EM and Ajit Kumar CR 1996 *Illustrated Flora of Keoladeo National Park Bharatpur Rajasthan*. Bombay Nat. Hist. Soc., Bombay.
- Samvatsar S 1996 *Flora of Western tribal Madhya Pradesh*. Scientific Publishers, Jodhpur.
- Sharma NK 2002 *Flora of Rajasthan*. Aavishkar Publishers Distributors, Jaipur.
- Sharma S and Tiagi B 1979 *Flora of North-East Rajasthan*. Kalyani Publishers, New Delhi.
- Shetty BV and Singh V 1991 *Flora of Rajasthan* Vol III BSI, Calcutta.
- Shetty BV and Pandey RP 1983 *Flora of Tonk District*. BSI, Howrah.
- Singh V 1983 *Flora of Banswara District*. BSI, Howrah.
- Tiagi YD and Aery NC 2007 *Flora of Rajasthan* (South & South-East Region). Himanshu Publications, New Delhi.
- Yadav B L and Meena KL 2011 *Flora of South Central Rajasthan*. Scientific Publishers, Jodhpur.