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 $\textbf{Print \& Online, Open Access, Research Journal Available on $$ $http://jbsd.in $$$

ISSN: 2229-3469 (Print); ISSN: 2231-024X (Online)

Research Article



Sida rhomboidea Roxb. Ex Fleming (Malvaceae), a new record for the Mararathwada region of Maharashtra, India

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Article Info	Abstract
Received: 04-05-2016, Revised: 05-06-2016, Accepted: 11-06-2016	Sida rhomboidea Roxb. ex Fleming, an uncommon herb or undershrub, belonging to family Malvaceae has been reported from Kinwat region of Nanded District, Maharashtra state for the first time as a new record for Marathwada region.
Keywords: Kinwat, Marathwada, Malvaceae, Sida.	

INTRODUCTION

Marathwada being one of the five administrative regions of Maharashtra comprise eight district viz. Aurangabad, Beed, Hingoli, Jalna, Latur, Nanded, Osmanabad and Parbhani and form a part of the vast Deccan Plateau. The plant wealth of the Marathwada region was compiled by Naik and his associates in two volumes, published in 1998. Flora of Marathwada enumerates 1645 species and 73 infraspecific categories belonging to 746 genera and 155 families (Naik, 1998). After the publication of Flora of Marathwada a number of species have been added by various workers such as Rathor & Chavan (2002), Rathor (2006), Rathor et al. (2007), Sonje et al. (2007), Kare et al. (2008), Rathor (2008), Survase & Sardesai (2008), Wadood Khan & Solanke (2008), Bhuktar & Sardesai (2009), Chavan et al. (2009), Francis et al. (2009), Rathor et al. (2009), Shinde & Waghmare (2009), Survase et al. (2009), Waghire & Chavan (2010), Waghire et al. (2010), Karodpati et al. (2011), Mali & Bhadane (2011), Gaikwad et al. (2012), Kamble et al. (2012), Karodpati et al. (2012), Kare et al. (2012), Kamble et al. (2013), Ingle et al. (2013), Jogdand & Dhabe (2013a), Jogdand & Dhabe (2013b), Paithane &

Bhuktar (2013), Paithane *et al.* (2013), Patil *et al.* (2013), Mule *et al.* (2013), Sardesai & Dhabe (2013), Chillawar & Rathor (2014), Gaikwad *et al.* (2014), Sonje *et al.* (2014) and Survase & Sonje (2014). All these publication have resulted addition of seven families, 55 genera, 134 species and 15 infraspecific categories.

During the field exploration (2013–2016) at Ambadi in Nanded district, author collected some specimens of an interesting species of *Sida*. A critical examination of specimens revealed its identity as *Sida rhomboidea*. The identity of the species was further confirmed with published literature (Sivarajan & Pradeep, 1994). This species has so far not been collected from Marathwada region. Hence, the present collection is the first report and is an addition to the flora of Marathwada. Voucher specimens are deposited at the herbarium (BAMU) of Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Enumeration

Sida rhomboidea Roxb. ex Fleming, Asiat. Res. 11. 178. 1810; Roxb., Hort. Beng. 50. 1814 & Fl. Ind. ed. Carey 3: 176. 1832; Wight & Arn., Prodr., Fl.

Pen. Ind. Orient. 57. 1834; Dunn. in Gamble, Fl. Pres. Madras1: 90. 1915; Sivar. & Pradeep, Sida 16 (1): 73. 1994 & in Malv. South. Penins. India 246, f. 88. 1996. *S. rhombifolia* L. var. *rhomboidea* (Roxb. ex Fleming) Mast. in Hook.f., Fl. Brit. India 1: 324. 1874. *S. rhombifolia* subsp. *rhombifolia*, sensu Borss., Blumea 14: 193. 1966; Fryxell, Syst. Bot. Manogr. 25: 403. 1988; Paul & Nayar in Nayar *et al.* (eds.), Fasc. Fl. India 19: 214. 1988.

Erect herb or sub shrubs 1–2.5 m high. Stem terete, minutely pubescent with small stellate hairs. Leaves obovate or suborbicular, rhomboid to lanceolate, truncate or rounded at base, subobtuse or acute at apex. Petiole stellate pubescent. Stipules equal, linear, slightly purplish. Flowers axillary, solitary. Pedicels 5-6 mm in flowers, to 25-35 mm in fruits, filiform, glabrous, articulated at about the middle. Calyx $7-9 \times 5-6$ mm, campanulate, 10ribbed at bas, 5-lobed, triangular, outer surface densely tomentose with minute stellate hairs, inside nearly glabrous, margins purplish. Corolla paleyellow; petals obliquely obovate, retuse emarginate at apex, glabrous. Staminal column 2.5-3 mm long, antheriferous at apex. Styles 8-10; stigmas capitate, yellow. Schizocarp 3-4 × 3-3.5 mm; mericarps 8–10, 3–3.5 mm long, completely included in the calyx, indehiscent, trigonous with acute angles, apex beaked with a single, glabrous muticous process. Seeds 2 mm long, brownishblack, glabrous throughout.

Fls. & Frts.: August to March.

Distribution and Ecology: Aurangabad, Pune, Ratnagiri, Kolhapur, Satara and Nanded districts (present report). The species grow along road sides in deciduous forests.

Exsiccata: Maharashtra: Kinwat, Dist. Nanded, *G. M. Tambde 010*, 01st October, 2014

Note: This species is similar to *S. rhombifolia* L. in overall resemblance and can be mistaken for the same, but can be separated from it is having rhomboid leaves, staminal column stellate-pubescent, mericarps beaked with a single, muticous process, indehiscent.

ACKNOWLEDGEMENT

Author is thankful to Head, Department of Botany Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, for providing laboratory and herbarium facilities. Author is also thankful to Dr. A. K. Pradeep, Herbarium Curator, Calicut University, Calicut, Kerala for confirming the identification.

REFERENCES

Bhuktar, **AS and Sardesai MM**, **2009**. Additions to the Flora of Marathwada. *Bioinfolet*, **6** (2): 165–167.

Chavan, SY, Waghire, HB, Bhuktar, AS and Sardesai, MM, 2009. Further additions to the Flora of Marathwada. *Bioinfolet*, 6 (4): 311–313.

Chillawar, RG and Rathor, OS, 2014. *Nothopegia castaneifolia* (Roth) Ding Hou, (Anacardiaceae) an addition to taxa of angiospermic Flora of Marathwada (Maharashtra state). *Bioinfolet*, 11 (3B): 162–164.

Francis, JW, Dhabe, AS and Sardesai, MM, 2009. *Celastrus paniculatus* Willd. ssp. *aggregatus* K.T. Mathew (Celastraceae), an addition to the Flora of Maharashtra State. *Rheedea.*, **19** (1 & 2): 73–74.

Gaikwad, SP, Gore, RD and Garad, KU, 2012. Additions to the Flora of Marathwada region of Maharashtra, India. *Journal of Threatened Taxa*, **4**(4): 2515–2523.

Gaikwad, SP, Gore, RD, Garad, KU and Randive, SD, 2014. New plant records for the Marathwada region of Maharashtra, India. *Journal of Threatened Taxa*, **6**(6): 5878–5886.

Ingle, Priyanka, Kamble, Santosh and Dhabe, Arvind, 2013. Additions to the Flora of Marathwada. *Bioinfolet*, 10 (2b): 708–709.

Jogdand, **Vinod and Dhabe**, **Arvind S**, **2013a**. *Plumeria pudica* Jacq. (Apocynaceae): An addition to the exotic plants of Marathwada. *Bioinfolet*, **10** (2a): 356.

Jogdand, **Vinod and Dhabe**, **Arvind S**, **2013b**. *Passiflora alata* Curtis (Passifloraceae): An addition to the Exotic ornamental Plants of Marathwada. *Bioinfolet*, **10**(2a): 357.

Kamble, Santosh, Ingle, Priyanaka and Dhabe, Arvind, 2012. Addition to the exotic plants of Maharashtra state. *Bioinfolet*, **9**(3): 406.

Kamble, TD, Karodpati, BN, Sardesai, MM and Dhabe, AS, 2013. Addition of some plants to Marathwada region of Maharashtra state. *Bioinfolet*, 10 (4A): 1100–1101.

Kare MA, Mule, DA, Paithane, VA and Bhuktar, AS, 2012. Addition of some non-indigenous elements to the flora of Marathwada regions, Maharashtra, India. *International Multidisciplinary Research Journal*, 2(12): 09–11.

Kare, MA, Survase, SA and Bhuktar, AS, 2008. New records of flowering plants for Marathwada, Maharashtra, India. *Bioinfolet*, 5(3): 274–276.

Karodpati, BN, Kamble, TD and Khobrogade, CN, 2011. *Neptunia oleracea* Lour (Mimosaceae): An addition to the Flora of Marathwada (MS) India. *Biosciences Discovery*, **02** (2):191–192.

- Karodpati, BN, Kamble, TD and Khobrogade, CN, 2012. *Antidesma ghasembila* Gaertn. & *Typhonium venosum* (Aiton) Hetterschid. & P.C. Boyce: Addition to the Flora of Marathwada (MS) India. *Bioinfolet*, 9 (2): 103–104.
- Mali, PY and Bhadane, VV, 2011. Ethnomedicinal wisdom of tribals of Aurangabad district (M.S.) India. *Indian Journal of Natural products and resources*, 2 (1): 102–109.
- Mule, DA, Paithane, VA and Bhuktar, AS, 2013. Costus pictus D. Don. ex Lindl. new records to Flora of Maharashtra, India. International Multidisciplinary Research Journal, 2 (12): 21.
- Naik, VN 1998. Flora of Marathwada. Vol. I & II, Amurt Prakashan, Aurangabad.
- **Paithane**, **VA and Bhuktar**, **AS. 2013**. *Premna mollisima* Roth.-New Reports for Flora of Maharashtra (India). *Indian Forester*, **139** (12): 1154–1155.
- Paithane, Vijay A, Sonje, SB and Bhuktar, AS, 2013. *Crotalaria orixensis* var. *naikii* (Fabaceae): A new variety from Deccan region of India. *Bioinfolet*, 10 (4a): 1091–1093.
- Patil RP, Awasarkar, UD and Theng, AP, 2013. New reports to the Flora of Marathwada. *DAV International Journal of Science*, 2 (1): 79–81.
- Rathor, OS and Chavan, VB, 2002. Occurrence of *Kleinhovia hospita* L. (Sterculiaceae) in Marathwada region of Maharashtra. *Journal of the Bombay Natural History Society*, **99** (2): 359.
- Rathor, OS, 2006. *Pittosporum dasycaulon* Miq. A new record for Marathwada. *Bioinfolet*, **3**(2): 140–141. Rathor, OS, 2008. *Muntingia calabura* L. (Elaeocarpaceae) A new addition in the flowering plants of Marathwada. *Bioinfolet*, **5**(1): 40–41.
- Rathor, OS, Chavan, VB and Zare, MK, 2009. Occurrence of Aeschynomene americana L. in

- Marathwada region of Maharashtra state. *Bioinfolet*, **6** (1): 50.
- **Rathor**, **OS**, **Ranjalkar**, **KM and Chillawar**, **RG**, **2007**. New records for the Flora of Marathwada. *Bioinfolet*, **4** (1): 60–62.
- **Sardesai**, **MM and Dhabe**, **AS**, **2013**. A Catalogue of species added to the Flora of Marathwada. *Bioinfolet*, **10** (1a): 1–7.
- **Shinde SR and Waghmare**, **BM**, **2009**. New records for the Flora of Marathwada from Kinwat forest of Nanded district. *Bioinfolet*, **6**(4): 302–303.
- **Sivarajan, VV and Pradeep, AK, 1994**. Taxonomy of the *Sida rhombifolia* (Malvaceae) Complex in India. *Sida*, **16**: 63–78.
- **Sonje**, **SB**, **Kare**, **MA** and **Bhuktar**, **AS**, **2007**. Newly recorded exotic plants for the Flora of Marathwada. *Bioinfolet*, **4** (3): 259–261.
- Sonje, SB, Paithane, VA, Jadhao, AS and Bhuktar, AS, 2014. Some new additions to flora of Marathwada. *Bioinfolet*, 11 (2c): 701–703.
- Survase, SA and Sardesai, MM, 2008. Additions to the Flora of Marathwada. *Bioinfolet*, **5**(4): 314–319.
- Survase, SA and Sonje, SB, 2014. Addition to the Flora of Marathwada region, Maharashtra. *Indian Journal of Plant Sciences*, 3 (2): 81–83.
- Survase, SA, Sardesai, MM and Naik, VN, 2009. Additions to the Flora of Marathwada. *Journal of Economic and Taxonomic Botany*, **33** (2): 289–294.
- Wadood Khan, MA and Solanke, SN, 2008. Novelties in Cyperaceae VIII–A new variety and a new record. *Bioinfolet*, **5**(2): 103–107.
- Waghire, HB and Chavan, SY, 2010. Further additions to the flora of Marathwada. *Bioinfolet*, 7 (1): 84
- Waghire, HB, Chavan, SY, Surwase, SA and Bhuktar, AS, 2010. Further additions to the Flora of Marathwada. *Bioinfolet*, **7** (3): 209–211.

How to Cite this Article:

Tambde G M, 2016. *Sida rhomboidea* Roxb. Ex Fleming (Malvaceae), a new record for the Mararathwada region of Maharashtra, India. *Bioscience Discovery*, **7**(2):113-115.