

First record of *Wrightia dolichocarpa* Bahadur & Bennet (Apocynaceae) from Rajasthan, India

Satish Kumar Sharma¹, Anil Sarsavan^{2*}

¹Assistant Conservator of Forests (Retd.), 14-15, Chakriya Amba, Rampura Chouraha, Jhadol Road, Udaipur, Rajasthan, India

²Foundation for Ecological Security, Post Box No. 29 At Jahangirpura, P.O. Gopalpura Vadod, Hadgud, District Anand, Gujarat, India

*Corresponding author: anilsarsavan@gmail.com (A.S.)

ABSTRACT

Two species of *Wrightia* genus namely, *W. tinctoria* and *W. pubescens* are reported from Rajasthan state. These two species are relatively short-fruited species having fruits up to or less than 50 cm. During the present study, a long-fruited species has been reported from the forest and agricultural area of Udaipur district in Rajasthan. This species is known as *W. dolichocarpa*, which possesses the fruits up to 60-96 cm in length. This is the first record of the species from the geographical limits of Rajasthan state.

Keywords: First record, *Wrightia dolichocarpa*, Rajasthan

Two species of *Wrightia* genus namely, *Wrightia tinctoria* and *W. pubescens* (*W. tomentosa*), are known from Rajasthan (Bhandari, 1990; Sharma & Tiagi, 1979; Shetty & Pandey, 1983; Shetty & Singh, 1991; Singh & Shrivastava, 2007; Tiagi & Aery, 2007 and Yadav & Meena, 2011). Both species are also reported from Gujarat state (Shah, 1978). *Wrightia tinctoria* is confined to Delhi (Maheshwari, 1963). Actually, *W. tinctoria* is more common than *W. pubescens* and is distributed in the whole Aravallis, from South-western end in Gujarat to North-eastern end in Delhi.

Each flower in *W. tinctoria* produces two smooth fruits. These paired follicles cohering at the tip. The length of follicles in Rajasthan varies from 15 cm to 50 cm (Table 1). The features related to fruits are very important to identify the species correctly in the field.

Presence of a very long-follicled new species *Wrightia dolichocarpa* Bahadur & Bennet has been recorded from the Bonta Forest, Nagar Haveli in Western India in 1969 whose description appeared in

1978 (Bahadur & Bennet, 1978). The length of follicles in *W. dolichocarpa* is quite long c. 60-95 cm. Follicles are dark green, coherent at the tip, slender, terete and lenticilate.

While performing the official duty (first author) in southern Rajasthan from 1986 to 2016, many trees of *W. dolichocarpa* were seen in Ubeshwar Forest Block. Later on, this species was also seen in Gogunda tehsil of Udaipur district. Location details and fruit length records are presented in Table 2.

Ubeshwar area was again visited on 01/05/2025 to observe the length of the mature seeds. During observation, it was noticed that most of the follicles found dehiscent and seeds were flying here and there with the help of their coma. Many flying seeds were collected and their length was measured. The average length of the seeds was about 3.1 cm.

Above study confirms the presence of *W. dolichocarpa* in southern Rajasthan. It is relatively a rare species in southern Aravallian forests. Hanging long fruits make it very prominent and from distance it becomes quite visible.

Received: 17 June 2025 | Accepted: 24 July 2025 | Published Online: 06 August 2025

How to cite: Sharma SK., Sarsavan A. 2025. First record of *Wrightia dolichocarpa* Bahadur & Bennet (Apocynaceae) from Rajasthan. Journal on New Biological Reports 14 (1): 8 – 10.

Table 1. Length of follicles of *W. tinctoria* reported in different floras of Rajasthan

S. No.	Flora/Reference	Length of follicles
1.	Flora of Rajasthan Vol.-2 (Shetty & Singh, 1991)	15-50 cm
2.	Flora of Indian Desert (Bhandari, 1990)	25-50 cm
3.	Flora of Tonk (Shetty & Pandey, 1983)	Upto 45 cm
4.	Flora of North East Rajasthan (Sharma & Tiagi, 1979)	Upto 30 cm
5.	Flora of South Central Rajasthan (Yadav & Meena, 2011)	25-50 cm
6.	Biodiversity of Ranthambhore Tiger Reserve, Rajasthan (Singh & Srivastava, 2007)	Upto 40 cm
7.	Flora of Rajasthan (South and South-East Rajasthan) (Tiagi & Aery, 2007)	Not recorded

**Fig. 1 & 2.** *W. dolichocarpa* at village Obra Khurd (left); Measuring length of follicles of *W. dolichocarpa* at village Obra Khurd (Close-up) (right).**Table 2.** Location details and fruit length of *W. dolichocarpa* in Udaipur district, Rajasthan

S. No.	Location details	Date	Length of 10 fruits (in cm)
1.	Village Obra Khurd, in an agriculture field near Boswa Mata temple (24.785382, 73.509703), tehsil Gogunda, District Udaipur (Fig. 1)	26/03/2025	94.0, 91.2, 90.4, 87.0, 87.5, 96.1, 93.2, 92.1, 95.1, 96.3 (Average 92.29 cm) (Fig. 2)
2.	Ubeshwar Forest Block (24.602399, 73.549691), Range- Udaipur (East), Division Udaipur (North)	26/03/2025	80.5, 82.3, 86.6, 86.3, 86.8, 85.5, 85.4, 85.1, 85.0, 80.2 (Average 84.37 cm)

Now three species under the *Wrightia* genus are known to Rajasthan state viz., *W. arboria*, *W. dolichocarpa* and *W. tinctoria*. To identify these three species in the field, their taxonomic are given below:

1a. Follicles rough with white tubercles, solitary due to complete fusion of two follicles i.e. one fruit is produced by each flower.....*Wrightia pubescens*

1b. Follicles paired, cohering at the tip only i.e., two fruits are produced by each flower

2a. Length of follicles 25-50 cm..... *Wrightia tinctoria*

2b. Length of follicles 60-96 cm..... *Wrightia dolichocarpa*

ACKNOWLEDGEMENTS

We thank the Forest Department, Rajasthan and Foundation for Ecological Security, Anand (Gujarat) for help, support and facilities provided during the present study.

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