



## RESEARCH ARTICLE

# Note on the distribution of *Schweinfurthia pterosperma* (A. Rich.) A. Braun in Kachchh-Gujarat

Kazbanu A. Sumra<sup>1\*</sup>, Paurav K. Mehta<sup>2</sup>

## Abstract

*Schweinfurthia pterosperma* (A. Rich.) A. Braun is a rare plant species known from few localities of Kachchh district, Gujarat. During the floristic exploration of Bhuj forest west range of Kachchh district, *S. pterosperma* was collected from the rocky hillocks. Detailed description and photographs are provided for easy identification.

**Keywords:** Bhuj- Kachchh, Plantaginaceae.

## Introduction

Plantaginaceae is a family of flowering plants in the order Lamiales comprising about 94 genera and approximately 1900 species (Xu, Z. *et al.* 2017). The genus *Schweinfurthia* A. Braun belongs to Plantaginaceae (APG IV 2016). It was first described in 1866. Previously this genus was placed in Scrophulariaceae (Hooker 1885, Cooke 1905, Oliver 1906, Shah 1978, Bhandari 1967). This genus comprises six species worldwide (POWO 2016) whereas in India two species occur (BSI ENVIS 2011 and Barik *et al.* 2018).

As a part of first author's Ph.D. work on the forest areas of Bhuj taluka of Kachchh district, several field trips were conducted during the years 2021-2023. Some individuals of *Schweinfurthia* were collected from two forest areas viz, Bhuj and Makanpar of Bhuj forest west range of Kachchh district. Critical examination of the specimens, relevant literature (Oliver Daniel 1906) and study of specimens housed at Kew

herbarium (Lord *s.n.*, Sudan K000411320 and Schweinfurt 173, Sudan K000411321) and Edinburgh herbarium (Cubey E00099207) confirmed the identity of the specimen as *Schweinfurthia pterosperma* (A. Rich.) A. Braun.

## Geographical Distribution

The native range of this species is north - East Tropical Africa, Arabian Peninsula, and South. Pakistan (POWO 2023). *Schweinfurthia papilionacea* (L.) Boiss. is a related species of *S. pterosperma*. *S. papilionacea* has been recorded from arid and semi-arid regions of India (Hooker 1885, Cooke 1908, Shah 1978, Bhandari 1990, Pandey *et al.* 2009, Patel *et al.* 2011, Joshi 2012, Joshi *et al.* 2013). However, the occurrence of *S. pterosperma* has been reported by only few workers (Rao 1981, Bhatt 1993, Raole 1993) from the saline habitat near Khavada in Kachchh district of Gujarat. Since then, there are no distributional records of *S. pterosperma* available in India. The species is mentioned as rare in the list of endemic and threatened taxa of India prepared by ENVIS Resource Partner on Biodiversity, India (BSI ENVIS 2011) and Barik *et al.* (2018).

## Taxonomical Description

*Schweinfurthia pterosperma* (A. Rich.) A. Braun Sitzungsber. Ges. Naturf. Freunde Berlin 20: 24 (1866); *Antirrhinum pterospermum* A. Rich. in Tent. Fl. Abyss. 2: 115 (1850).

Annual or perennial herb up to 10-45 cm tall, branching at a narrow angle; Stem green, glabrous, cylindrical, internodes 2-4.8 cm long; Leaves distinctly petiolate, oblong-ovate to narrowly spatulate, 7-35 x 1.5-15 mm; Inflorescence with 2-10(-20) flowers; pedicels 4-13 mm long, becoming evenly recurved (Figure 1c); Calyx green, sepals 5, lobes, ovate, the longest 4-6 mm long; Corolla 5-8 mm long, Gamopetalous,

<sup>1</sup>Department of Earth & Environmental Science, KSKV Kachchh University Bhuj- Kachchh, Gujarat, India.

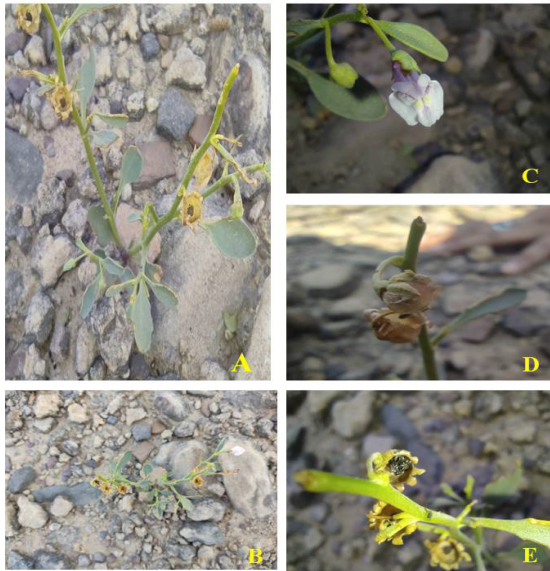
<sup>2</sup>Government Science College, Mandvi, Kachchh, Gujarat, India.

\***Corresponding Author:** Kazbanu A. Sumra, Department of Earth & Environmental Science, KSKV Kachchh University Bhuj- Kachchh, India, E-Mail: kazbanu111@gmail.com

**How to cite this article:** Sumra KA, Mehta PK. 2024. Note on the distribution of *Schweinfurthia pterosperma* (A. Rich.) A. Braun in Kachchh-Gujarat. J. Indian bot. Soc., 104 (1): 64-65. Doi: 10.61289/jibs2023.12.21.1207

**Source of support:** Nil

**Conflict of interest:** None.



**Figure 1:** *Schweinfurthia pterosperma* (A. Rich.) A. Braun: (A) and (B) Plant habit and habitat (C). Flower; (D) fruit (E). dehiscent capsule with mature seed

petals 5, 2-3 lobed, oblong - semi acute, 9-14 mm, whitish with pink throat and yellow palate; Stamens 4, filiform, hairy at the base, white, 1.5-3 mm; carpels 2, globular, 1.5-2.5 mm, style glabrous, filiform, Capsule 4.2–8 mm long; Seeds black, 1–1.5 mm long (Figure 1 D and E).

### Habitat and Ecology

This species grows in rocky and sandy soil (Figure 1 A and B). It occurs on the rocky and hilly undulated terrain and was found frequently associated with *Cleome viscosa* L., *Aristida adscensionis* L., *Pulicaria angustifolia* DC., *Suaeda fruticosa* (Linn.) Forsk., *Prosopis juliflora* (Sw.) DC. and *Euphorbia caducifolia* Haines.

### Flowering and Fruiting

February to October

### Acknowledgements

The authors are thankful to the forest Department, west division of Kachchh – Gujarat for permitting to conduct the research work in forest areas. First author is thankful to the SHODH scheme, Department of Education - Gujarat for providing fellowship for the study. Mr. Kishan Prajapati and Ms. Jignashaba Jadeja are thanked for their help in photography of the plant.

### References

Barik S, Tiwari O, Adhikari D, Singh P, Tiwary R and Barua S (2018). Geographic distribution pattern of threatened plants of

India and steps taken for their conservation. *Curr. Sci.* **114** (3): 470-503.

- Bhandari M (1990). *Flora of the Indian Desert*. MPS Repros, Jodhpur.
- Bhatt J (1993). *Studies on the flora of Western Kachchh*. Ph.D. Thesis, M.S. University of Baroda, Vadodara.
- BSI ENVIS (2011). ENVIS Center for Floral Diversity - State wise Distribution of Endemic and Threatened plant Taxa of India. [http://bsienvis.nic.in/Database/E\\_3942.aspx](http://bsienvis.nic.in/Database/E_3942.aspx) . Accessed on 25 October 2022.
- Botanical Survey of India (2022) Checklist of plants of India on [https://efloraindia.bsi.gov.in/eFlora/speciesList\\_PCL.action?resultType=genusWise&parent\\_Id=36546&parent\\_Name=schweinfurthia](https://efloraindia.bsi.gov.in/eFlora/speciesList_PCL.action?resultType=genusWise&parent_Id=36546&parent_Name=schweinfurthia) . Accessed on 20 April 2022.
- Cooke T (1908). *The flora of the Presidency of Bombay*. Taylor and Francis, London.
- Hooker J D (1885). *Flora of British India*. Reeve L and Co., London.
- Jain S and Deshpande U 1960 Further Contribution to the Flora of Kutch in Gujarat State, *Nelumbo* **2(3-4)**: 287-292.
- Joshi P, Soni H, Sunderraj S and Joshua J (2013) Distribution and conservation of less known rare and threatened plant species in Kachchh, Gujarat, India. *Our Nature* **11(2)** 152-167.
- Joshi PN, Joshi EB and Jain BK (2012). Ecology and conservation of threatened plants in Tapkeshwari Hill ranges in the Kachchh Island, Gujarat, India. *J. Threa. Taxa* **4(2)**: 2390-2397.
- JSTOR -Global Plants database (2023). <https://plants.jstor.org/stable/10.5555/al.ap.specimen.e00614740> Accessed on 22 April 2023.
- Oliver D (1906). *Flora of tropical Africa*. L. Reeve and co, London.
- Pandey P, Singh V and Parmar J (2009) Phytodiversity of the Narayan Sarovar Wildlife Sanctuary, Kachchh, Gujarat, India. *Nelumbo* **51**: 41-98.
- Plants of the world online. (2023). <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:808971-1> Accessed on 8 February 2023.
- Rao K S S (1981). *Flora of South-eastern Kutch*. Ph.D. Thesis, M.S. University of Baroda, Vadodara.
- Raole V (1993). *Studies on Endangered and Endemic Desert Taxa – Kachchh*. Ph.D. Thesis, M.S. University of Baroda, Vadodara.
- Rob Cubey (2022). Royal Botanic Garden Edinburgh Herbarium (E). Royal Botanic Garden Edinburgh. Occurrence dataset <https://doi.org/10.15468/ypoir> accessed via GBIF.org Accessed on 20 June 2023. <https://www.gbif.org/occurrence/574744642>
- Schweinfurthia pterosperma* (A.Rich.) A.Br. in GBIF Secretariat (2022). GBIF Backbone Taxonomy. Checklist dataset <https://doi.org/10.15468/39omei> accessed via GBIF.org Accessed on 21 June 2023.
- Shah G L (1978). *Flora of Gujarat State*, Sardar Patel University Press, Vallabh Vidyanagar, Gujarat.
- World flora online (WFO) (2023). *Schweinfurthia pterosperma* (A.Rich.) A. Braun. Published on the internet; <http://www.worldfloraonline.org/taxon/wfo-0001278655>. Accessed on : 20 June 2023.
- Xu Z and Chang L (2017). Plantaginaceae , In : *Identification and Control of Common Weeds*. Springer, Singapore. **3**: 339-374. [https://doi.org/10.1007/978-981-10-5403-7\\_15](https://doi.org/10.1007/978-981-10-5403-7_15)