



## Short communication

## *Eleutherine bulbosa* (Mill.) Urb. (Iridaceae): A new distributional record to the flora of Eastern Ghats, India

R. Prameela<sup>1\*</sup>, J. Swamy<sup>2</sup> and M. Venkaiah<sup>3</sup>

<sup>1</sup>Department of Botany, M.R. Degree College, Vizianagaram, Andhra Pradesh-535002, India

<sup>2</sup>Botanical Survey of India, Deccan Regional Centre, Hyderabad, Telangana-500048, India

<sup>3</sup>Department of Botany, Andhra University, Visakhapatnam, Andhra Pradesh-530003, India

\*Corresponding Author: [prameelachris@yahoo.com](mailto:prameelachris@yahoo.com)

[Accepted: 20 November 2018]

[Cite as: Prameela R, Swamy J & Venkaiah M (2018) *Eleutherine bulbosa* (Mill.) Urb. (Iridaceae): A new distributional record to the flora of Eastern Ghats, India. *Tropical Plant Research* 5(3): 303–305]

The family Iridaceae Juss. contains 70 genera and 2000 species having a cosmopolitan distribution, with the highest diversity in Southern Africa, East Mediterranean, Central and South America (Mabberley 2008). The genus *Eleutherine* Herb. is a member of the new world tribe Tigridieae of Iridaceae and comprises low-growing bulbous plants with pleated lanceolate leaves and small white, evening-blooming flowers (Goldblatta & Snow 1991), and comprises four species. *Eleutherine angusta* Ravenna native range is Mato Grosso do Sul (Brazil) to Paraguay of South America. *E. bulbosa* (Mill.) Urb. is distributed in Mexico, Caribbean, and Central and South America; it is introduced and cultivated in several parts of Africa and Asia, and now naturalized in Indochina, Philippines, and in some parts of India. *E. citriodora* (Ravenna) Ravenna from northern Argentina, and *E. latifolia* (Standl. & L.O. Williams) Ravenna is distributed in northern Central America and subtropical South America. (Goldblatta & Snow 1991, The Plant List 2013).

During a short visit to the Vizianagaram district in Andhra Pradesh, the authors collected an *Eleutherine* Herb. species in flower from Eastern Ghats (Mantrajola forest of Andhra Pradesh), which was later identified as *Eleutherine bulbosa* (Mill.) Urb., is distributed in Mexico, Caribbean, and Central and South America. It is introduced and cultivated in several parts of Africa and Asia, and now naturalized in Indochina, Philippines, and in some parts of India (Pradeep 1995). Scrutiny of Indian literature reveals that the species was first collected from the Bengal by Prain (1903), and reported as a *Cipura paludosa* Aubl. Since then Santapau & Henry (Santapau & Henry 1973), Karthikeyan *et al.* (1989) have followed Prain (1903) in the nomenclature of this species. Pradeep (1995) observed this species under cultivation in many gardens of India and reported from Kerala, and not from the Eastern Ghats of Andhra Pradesh and hence the present collection is reported as a new distributional record for the Eastern Ghats of Andhra Pradesh. Detailed description, updated citation, habitat, distribution and colour photographs are provided to facilitate easy identification.

### TAXONOMIC TREATMENT

*Eleutherine bulbosa* (Mill.) Urb., Report. Spec. Nov. Regni Veg, 15: 305.1918; Godblatt & Snow, Ann. Missouri Bot. Gard. 78(4): 946. 1991; Pradeep, Rheedea 5 (2):181–183. 1995. **(Fig. 1)**

*Bermudiana bulbosa* Molina Hist. Chil., ed. angl. i. 113, 293 (1809).

*Cipura paludosa* Aubl., Hist. Pl. Guiane. 1: 38, t. 13. 1775; Bengal Pl. 2: 1055. 1903; Karthik. *et al.*, Fl. Ind. Enum. Monocot. 83. 1989, non. Aubl., 1775.

Perennial bulbous herbs, 50–60 cm high. Bulbs 5–7 cm long and 3–4 cm width, ellipsoid, fleshy, red in colour and acrid. Basal leaves 20–37 × 0.8–1.5 cm, narrowly lanceolate, plicate, entire along the margin, glabrous, many nerved. Stem terete, comprising one long internode, with a large cauline leaf at the apex, subtending the inflorescence. Inflorescences of several stalked rhipidia, the peduncles 2.0–5.5 cm long, borne both in the axil of the cauline leaf and in umbellate fashion on a secondary axis. Spathes 11–15 mm long, green, glabrous, margins slightly scarios. Flowers white, stellate, 2.0–2.9 cm long, 2.0 cm in diam.; pedicels *ca.* 10 mm long; bracts membranous, hyaline, as long as pedicel; tepals 6, white, free, in two whorls of three each;

outer tepals *ca.* 12 × 5.0 mm, obovate; inner ones narrowly obovate, *ca.* 10 × 4.0 mm. Stamens 3, adnate to the outer tepal segments; filaments 2–3 mm long, free, filiform; anthers 3–4 mm long, linear to oblong, orange yellow. Ovary 4 mm long, obovoid, glabrous, tri-carpellary, tri-locular, 2–4 ovules in each locule; ovules stalked, arranged in axile placentation; style filiform, yellow, 2 mm long, 3-branched; branches as long as or slightly longer than the anthers, subulate. Fruit not seen.



**Figure 1.** *Eleutherine bulbosa* (Mill.) Urb.: A, Habit; B, Flowering branches; C, Bulb with transverse section; D, Stamen; E, Pistil.

**Flowering & fruiting:** April to September.

**Habitat:** Rarely found in thickets of Eastern Ghats.

**Distribution:** *Eleutherine bulbosa* is distributed in Mexico, Caribbean, and Central and South America. It is introduced and cultivated in several parts of Africa and Asia, and now naturalized in Indochina, Philippines, and in some parts of India (Pradeep 1995).

**Specimen examined:** Eastern Ghats, Andhra Pradesh, Vizianagaram Gummalaxmipuram mandal, Mantrajola, 06.04.2018, R. Prameela & J. Swamy 009258 (BSID!).

#### ACKNOWLEDGEMENTS

Authors are thankful to Director, Botanical Survey of India, Kolkata and Dr. L. Rasingam, Scientist In-charge, Botanical Survey of India, Deccan Regional Centre, Hyderabad for facilities.

#### REFERENCES

- Mabberley DJ (2008) *Mabberley's Plant-book A portable dictionary of plants - their classification and uses (3<sup>rd</sup> edition)*. Cambridge University Press, Cambridge, U.K., p. 433.
- Goldblatta P & Snow N (1991) Systematics and Chromosome Cytology of *Eleutherine* Herbert (Iridaceae). *Annals of the Missouri Botanical Garden* 78(4): 942–949.
- The Plant List (2013) *Eleutherine* Herb. Available from: <http://www.theplantlist.org/> version 1.1 (accessed: 16 Apr. 2018).
- Pradeep AK (1995) *Eleutherine bulbosa* (Mill.) Urb. (Iridaceae-Tigridieae): a little understood exotic in India. *Rheedea* 5(2): 180–183.
- Prain D (1903) *Bengal Plants (Apocynaceae- Selaginellaceae)*. Vol. II, Calcutta, p. 1055.
- Santapau H & Henry AN (1973) *A Dictionary of flowering plants in India*. New Delhi.
- Karhikeyan S, Jain SK, Nayar MP & Sanjappa M (1989) *Florae Indicae Enumeratio-Monocotyledonae*. Botanical Survey of India, Calcutta, India.