



New record of *Eleutheranthera ruderalis* (Swartz) Schultz Bipontinus (Asteraceae) for Bangladesh

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Abstract

Eleutheranthera ruderalis (Sw.) Sch. Bip. belonging to Asteraceae family has been described here for the first time from Bangladesh. This specie was collected from Lalpur upazila of Natore and Ishurdi upazila of Pabna, Bangladesh. Details taxonomic description, phenology, distribution, use and photograph have been given below to facilitate its easy identification.

Keywords: *Eleutheranthera ruderalis* (Sw.) Sch. Bip. Natore, Pabna, Asteraceae

Introduction

Asteraceae family (nom. alt. Compositae) is one of the largest flowering plants comprising 1701 genera (POWO) [12] and 24000 species and was found all the region except Antarctica (Uddin and Uddin, 2022) [20]. In Bangladesh, the family Asteraceae is represented by 72 genera and 132 species (Ahmed *et al.*, 2009; Rahman *et al.*, 2016; Uddin and Uddin, 2022) [01, 16, 20]. During the visit of Lalpur upazila and Paksi of Ishurdi upazila in two different times, 1st author has been observed and collected an unknown specimen from Azim Nagar railway station area of Lalpur and Paksi Railway officer's quarters campus of Ishurdi. After a critical examination and consulting with the relevant literature and online flora (eFloras. org) [02] it was identified as *Eleutheranthera ruderalis* (Sw.) Sch. Bip. It was an exotic herb and was naturalized in India since long. It was first reported by Bennet (1965) from West Bengal, India (Jana and Mukherjee, 2015) [05] and description of this species was absent in "Bengal plants" by David Prain (1903) [13]. *Eleutheranthera ruderalis* was reported from adjacent neighborhood of Bangladesh such Murshidabad and Nadia district of West Bengal of India (Jana and Mukherjee, 2015) [05] and was also reported from Amdaman and Nicobar Island, Lakshadweep, Kerala, Karnataka and Tamil Nadu of India (Kottaimuthu *et al.*, 2018) [09]. In Bangladesh, no report on this species has been published yet, therefore it was first time record from Bangladesh (Uddin *et al.*, 2015; Uddin and Abiabdullah, 2016; Mahmudah *et al.*, 2017; Rahman and Uddin, 2018; Uddin and Hassan, 2018; Rahman *et al.*, 2019; Sarker and Rahman, 2019; Khanam *et al.*, 2020; Hossain *et al.*, 2021; Khan *et al.*, 2021; Khatun *et al.*, 2022; Uddin *et al.*, 2023 and Hasan and Samad, 2023) [21, 19, 11, 15, 22, 14, 17, 07, 04, 06, 18, 03]. Taxonomic description, flowering and fruiting time, distribution, use along with photograph have been given below to help its identification. *Eleutheranthera ruderalis* (Sw.) Sch.-Bip. in Bot. Zeitung (Berlin) 24:239 (1866); *Eleutheranthera ruderalis* Hitchc. Rep. (Annual) Missouri Bot. Gard. 4:99(1893); *Melampodium ruderalis* Sw. in fl. Ind. Occid. 3:1372 (1806); *Kegelia ruderalis* (Sw.) Sch. Bip. in Minnaea 21:245(1848); *Tatranthus ruderalis* (Sw.) Griseb. in Abh. Konigl. Ges. Wiss. Gottingen 7:234 (1957); *Ogiera ruderalis* (Sw.) Griseb. in Pl. Wright.2: 513(1862); Bennett in Curr. Sci. 34:411(1965); H.J. Chowdhery in Hajra & al.,

Fl. India 12:383(1995); Sasidh. & Siver., Fl.Pl. Thrissur For.:250 (1996); S. Choudhury & S. K. Mukherjee in J. Econ. Taxon. Bot. 29 (2): 366 (2005); Sunil & Sivad. Fl. Alappuzha dist.: 383 (2009) (Fig 1).

English name: Ogiera

Bangle name: Not known

Description: Herbs, Annual, erect, up to 30 to 40 cm high, branched; stems glabrate to sparsely pubescent, slender, ribbed. Leaves opposite, ovate to ovate-lanceolate, shallowly crenate to serrate, base wedge-shaped, obtuse to acute at apex, 3–6 × 1.5–3 cm, scabrous on both the surfaces; 3-nerved from near base, petioles 1–1.5 cm long. Capitula homogamous, solitary or 2–3 in each axil, 4–6 mm across; peduncles slender, up to 2 cm long, pilose, drooping. Involucre campanulate, involucral bracts are in two series, 5–8, unequal, oblong or oblong-ovate, 5–7 × 1–2.5 mm, obtuse, hairy, margin ciliate. Florets 3=6, bisexual. Corolla yellow, gamopetalous, tubular, 2–2.5 mm long, 5 toothed. Stamens 5, anthers black; filaments linear, 1 mm long. Ovary inferior, linear-oblong, 1–2 mm long, style branches linear, slender, up to 2.5 mm long, minutely papillose at apex. Fruits achenes, 2-4 mm long, shallowly compressed, obovoid, black, minutely white puberulous near the apex.

Flowering and Fruiting: September – February

Uses: *Eleutheranthera ruderalis* used to for reducing high blood pressure and breastmilk of lactating mothers (Lachman-White *et al.*, 1987) [10].

Habitat: The plant is grown along road sides in shady place.

State of Occurrence: More or less common in collection localities

Global Distribution: Native to Central and South America and introduce to Africa, Australia, India, China, Sri Lanka, Taiwan, Thailand.

Specimens examined: Natore: Lalpur, Near Azim Nagar Railway Station, 19 xii 2022, Md. Tarikul Hasan, MTH

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Pabna: Ishurdi, Paksi, Railway officer’s quarters area, 24 x 2023, Md. Tarikul Hasan, MTH 2721 (Department of Botany, Rajshahi Government City College, Rajshahi).



Fig 1: Photograph of *Eleutheranthera ruderalis* A. Natural view B. Bract, C. Capitula.

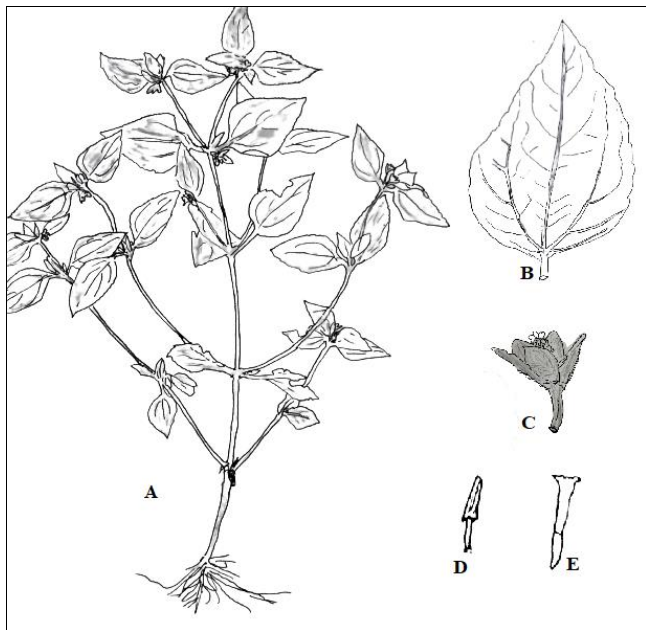


Fig 2: Photograph of *Eleutheranthera ruderalis* A. Whole plant B. Leaf, C. Capitulum, D. Anther and E. Disk floret

Discussion

Eleutheranthera ruderalis is almost similar to *Synedrella nodiflora* (L.) Gaetner from which it can be distinguished based on stem and inflorescence as summarized in the table below:

Table 1: Diagnostic morphological characters of *E. ruderalis* with *S. nodiflora*

Characters	<i>E. ruderalis</i>	<i>S. nodiflora</i>
Stem and leaf	Hairy	Glabrate
Capitula	Homogamous and pedunculate	Heterogamous and sessile
Pappus	Absent	Present
Achenes	Obovoid	Oblanceolate

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