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Solanum elaeagnifolium Cav. (Solanaceae): A NEW RECORD FROM THE STATE OF PUNJAB, INDIA

Rai Singh Dhillon

Biology Lab, Taj Public School Jand Sahib, Faridkot, Punjab, India

E-mail: raibot95@gmail.com

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ABSTRACT

Solanum elaeagnifolium Cav. (Solanaceae) is documented first time from the state of Punjab, India during the year 2024-2026. Morphological parameters (stem, leaf, flower, androecium, gynoecium, fruit, seed, etc.) were studied for proper identification.

Keywords : *Solanum*, weed, taxonomy, flower, botany, flora, angiosperm

Introduction

Solanum L. is one of the largest and economically important genera of flowering plants belonging to the family Solanaceae with nearly 1,500 species distributed throughout tropical, subtropical, and temperate regions of the world (D'Arcy, 1991; Nee, 1999).

Members of *Solanum* exhibit remarkable diversity in habit, ranging from annual herbs to shrubs, climbers, and small trees (Singh, 2019). Alternate leaves, bisexual and actinomorphic flowers, five-lobed calyx and corolla, five epipetalous stamens and a superior ovary etc. are the important features of the genus *Solanum* (Sharma, 2017).

Sharma (2021) recorded fifteen species of the genus *Solanum* (*S. anguivi* Lam., *S. crispum* Ruitz & Pav., *S. erianthum* D. Don, *S. grandiflorum* Ruitz & Pav., *S. incanum* L., *S. jasminoides* J. Paxton, *S. melongena* L., *S. pseudocapsicum* L., *S. nigrum* L.,

S. rantonnetii Carr & Luscuy, *S. seaforthianum* Andrews., *S. torvum* Sw., *S. tuberosum* L., *S. viarum* Dunal. and *S. virginianum* L.) from the state of Punjab, India. Recently, four species of the genus *Solanum* L. (*S. americanum* Mill., *S. nigrum* L., *S. villosum* Mill. and *S. virginianum* L.) recorded as weed species of different kharif and rabi crops from malwa region of Punjab India (Dhillon, 2024; 2025). But updated information about weed species grown in wild habitat is incomplete. Therefore, this study was conducted for updated information about species of the genus *Solanum* L. from the state of Punjab.

Materials and Methods

Study area

Present study was conducted in the district Ferozpur (30.9234°N Latitude and 74.6102° E Longitude), Punjab, India (Fig. 1) during the year 2024, 2025 and 2026. The plant species was documented from waste places as a weed species.

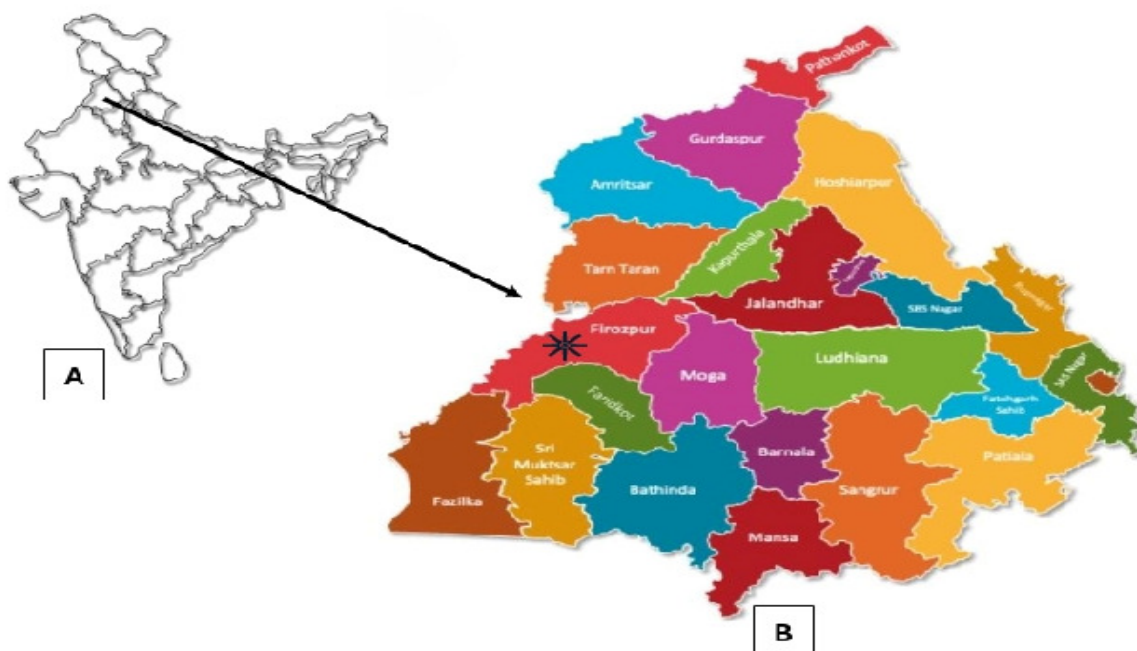


Fig. 1 : A – Map of India; B- Map of Punjab (Ferozepur District labelled with Star)

(Source – www.google.com)

Taxonomic identification

Different morphological parameters such as stem, leaf, flower, sepals, petals, stamens, stigma, style, ovary *etc.* were examined for accurate identification. Available literature (Agajanov, 1957; Baytop, 1978; Zernov and Mirzayeva, 2016; Knapp *et al.*, 2017 and Tataridas, 2023) was also consulted for authentication.

Morphological detail

Solanum elaeagnifolium Cav. (Fig. 2) is herbs to shrubs, perennial, erect, sparsely to densely armed, prickles orange to reddish brown, straight, 2-5 mm, densely silvery-pubescent, hairs sessile or subsessile, scale like, central ray shorter than lateral rays, lateral rays fused at center. Leaves petiolate; petiole 1–5 cm; blade simple, lanceolate to oblong, 5–17 × 0.5–3.5 cm, margins undulate, sub entire to sinuate or shallowly lobed, lobe margins entire. Inflorescences extra-axillary, unbranched, 3–5(–7)-flowered, 3–5 cm. Pedicels 1–4 cm in flower, reflexed and 1–3 cm in fruit. Flowers radially symmetric; calyx armed or with sparse prickles, 5–10 mm, densely silvery-stellate-pubescent, lobes linear-lanceolate; corolla deep blue or violet, pentagonal, 2–3 cm diameter, stamens -5, epipetalous, equal, anthers narrow, 6–9 mm, yellow dehiscent by terminal pores; ovary glabrous to densely stellate-pubescent. Berries yellow, brown or black,

globose, 0.5– 2 cm diameter, glabrous. Seeds yellowish, flattened, 3–5 × 2–4 mm.

Phenology- Flowering and Fruiting almost throughout the year.

Synonyms

- *Solanum dealbatum* Lindl.
- *Solanum elaeagnifolium* f. *albiflorum* Cockerell
- *Solanum elaeagnifolium* var. *angustifolium* Kuntze
- *Solanum elaeagnifolium* var. *argyrocroton* Griseb.
- *Solanum elaeagnifolium* f. *benkei* Standl.
- *Solanum elaeagnifolium* var. *grandiflorum* Griseb.
- *Solanum elaeagnifolium* var. *leprosum* (Ortega) Dunal
- *Solanum elaeagnifolium* var. *obtusifolium* Dunal
- *Solanum flavidum* Torr.
- *Solanum leprosum* Ortega
- *Solanum lunatum* J.Drumm.
- *Solanum obtusifolium* Humb. & Bonpl. ex Dunal
- *Solanum roemerianum* Scheele
- *Solanum saponaceum* Hook.
- *Solanum texense* Engelm. & A.Gray
- *Solanum uniflorum* Meyen ex Nees

Conclusion

Solanum elaeagnifolium Cav. (Solanaceae) is documented first time from the state of Punjab, India. This information will be helpful for taxonomists, botanists, ethnobotanists *etc.* as an additional information about floristic composition of the region.

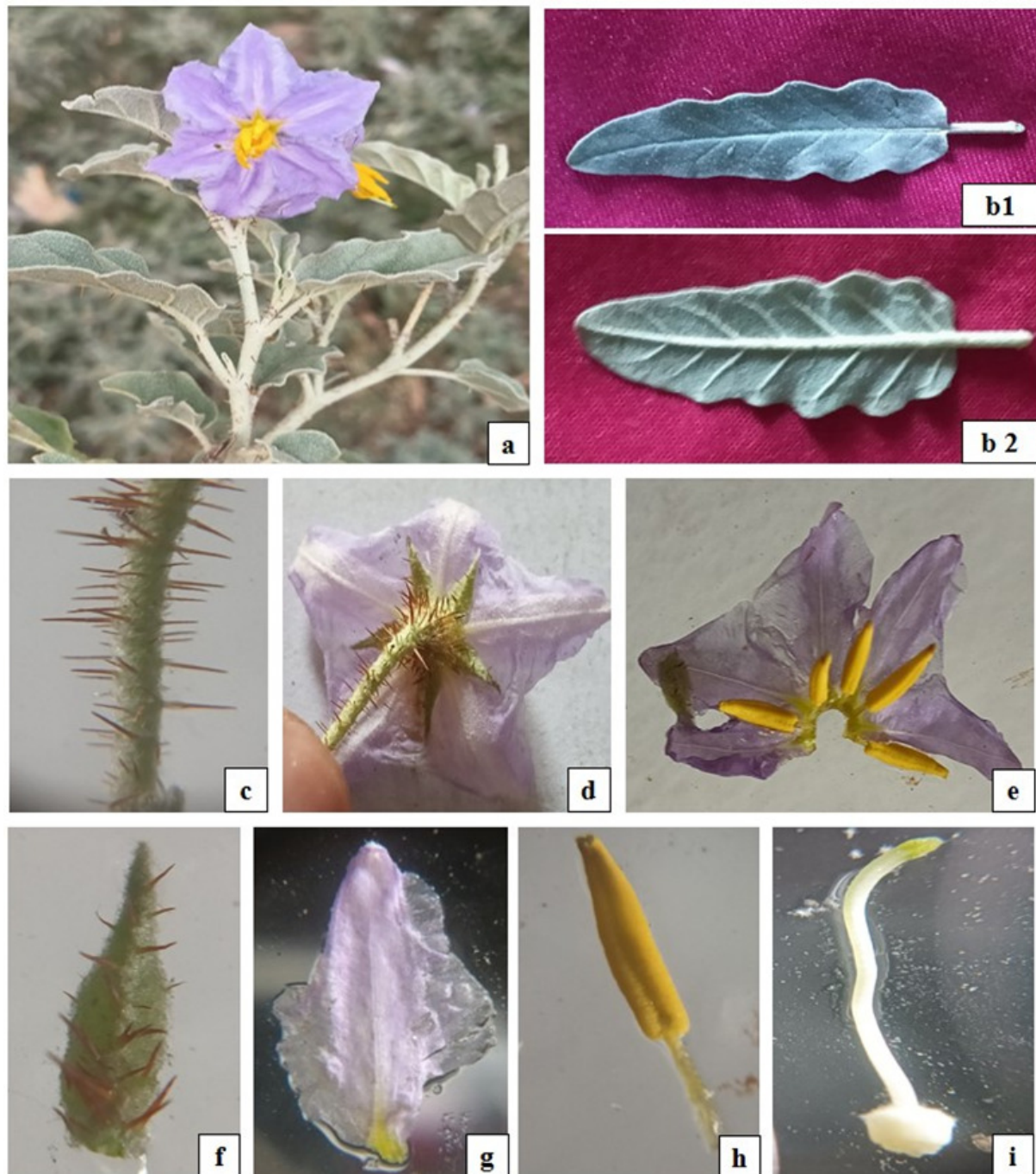


Fig. 2.: a) Habitat; b) Leaf; c) Pedicle; d) Position of flower; e) Flower; f) Sepals; g) Petals; h) Androecium; i) Gynoecium.

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