
Research Article

***Senecio vulgaris* L. (Asteraceae): a new addition to flora of Haryana state, India**

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DOI: <https://doi.org/10.5281/zenodo.20391306>

Article Details: Received: 2026-05-11 | Accepted: 2026-05-23 | Available online: 2026-05-26



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Abstract: A new floristic record of family Asteraceae, belonging to the genus *Senecio* have been reported from Haryana, India during recent plant exploration program in 2026. The species *Senecio vulgaris* L. was collected and identified based on detailed morphological examination and taxonomic literature. This is annual herbaceous species native to Europe and parts of Asia. It is widely naturalized in many regions of the world. This record contributes to the regional plant diversity knowledge and provides baseline for further taxonomic and ecological studies.

Keywords: Common groundsel, Floristic diversity, Introduced species, new record

Introduction

The family Asteraceae is one of the major angiospermic family comprises about 43 tribes, about 1600 genera and about 25000 species under about 16 subfamilies. In India, this family is represented by around 24 tribes and about 1314 species under about 204 genera (Solanki et al., 2023). Species of the family are cosmopolitan in nature except Antarctica (Nikolic and Stevovic, 2015). The major genera of this family are *Senecio* (about 1470 species), *Vernonia* (about 1050 species), *Cousinia* (about 600 species) etc. (Singh, 2019). In India, the genus *Senecio* is represented by about 47 species and about 6 varieties (Karthikeyan et al., 2020; Jeswani et al., 2024). Perusal of literature on

flora of Haryana including the works of Jain (2000); Kumar, (2001); Naithani and Chandra, (2022); Verma et al., (2025); Singh, J.B. (2009); Yadav and Bhandoria, (2013); Singh et al., (2025) revealed that *Senecio vulgaris* has not been reported from Haryana. During recent floristic survey, authors recorded the occurrence of *S. vulgaris* from the Gurugram district. The present paper provides detailed description of species along with location and other relevant taxonomic details.

Survey area: Haryana state has a geographical area of 44,212 sq. km which constitutes 1.34% of total geographical area of India. It lies between latitude 27°39'N to 30°55'N and longitude 74°27'E to 77°36'E in northern part of India (FSI, 2019), having semi-arid to sub-humid climatic conditions and rich in fertile agricultural land with supports huge biodiversity. During our survey of the Gurugram district this species *Senecio vulgaris* was recorded from village Janaula, tehsil Pataudi. This specimen was collected from open agricultural fields (Figure 1).

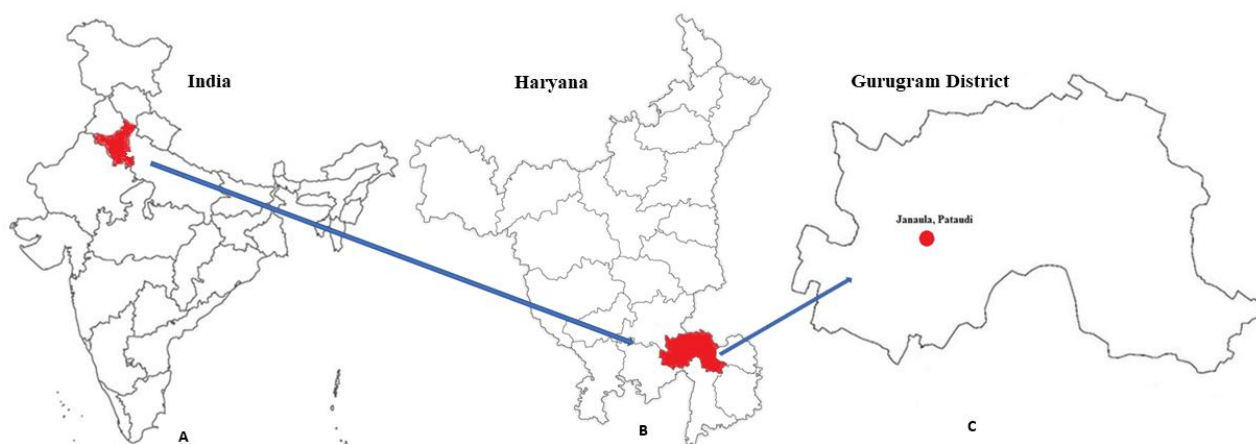


Figure 1: Occurrence map of *Senecio vulgaris* A. and B Location of Gurugram district in Haryana, India C. *Senecio vulgaris* Sampling area shown in red colour

Material and methods

The plant specimen was identified by using standard taxonomic keys (Wu et al., 2011) and by comparing with herbarium specimen. The voucher specimen was dried, pressed and mounted on the herbarium sheet. The specimen was then deposited in the Herbarium of Wildlife Institute of India, Dehradun (WII) and voucher number (WII013396) was prevailed for future references. The coordinates of plant specimen were also recorded and photographs were taken.

Systematic enumerations

Senecio vulgaris L., Sp. Pl. 1753; Stace, C., Fl. British Isles 4: 1-1266. 2019; Hassler, M. & Muer, T. Fl. Germanica 2: 865-1712. 2022.

Erect; herbaceous; 10-40 cm tall, annual; Glandular hairs absent; Life span 5-6 weeks; taproot system; alternate, sessile leaves, leaves pinnately lobed, Lower leaves have small ear like lobes while upper leaves clasp the stem, about 2.4 inches long and 1 inch wide, become smaller towards the top, covered with few soft and fine hairs; Stem hollow and succulent, branches from both base and top; flowers grow in loose cluster of 8-10 small yellow cylindrical flower heads, ray florets absent, flower

head 6-13 mm long, distinct ring of black tipped bracts present at the base; Seeds are achene, become sticky when wet (Figure 2).

Flowering & fruiting period: February to May

Distribution: This species has previously been reported from different parts of India including Tamil Nadu, Assam (Sharma, 1995); Kashmir (Kaul, 1972); Rajasthan (Todarwal, 2016); Madhya Pradesh, Andhra Pradesh, Himachal Pradesh, Uttarakhand, Kerala, Jharkhand, West Bengal, Karnataka based on records on iNaturalist, (2026) and Haryana (Present record).



Figure 2: Morphological feature of *Senecio vulgaris*(A) Habit, (B) Leaves, (C) Close-up of Flower, (D) Flower (E) Photograph of plant with GPS data (F) Herbarium specimen

Species examined: India, Haryana, Gurugram, Januala; 28.355979° N & 76.810344°E; 235 msl; 23 March 2026, Balkar Singh 013396 (Herbarium of WII).

Discussion: The present study highlights the importance of continuous exploration in documenting the unreported taxa. Documentation of new record provides baseline information for species taxonomy, conservation and ecological status. This species behaves as a weed and found distributed along roadside, wasteland, agricultural land and open area. *S. vulgaris* was traditionally used for treatment of toothache, dysmenorrhea, and amenorrhea. Some studies show the detrimental activities in this species due to the presence of pyrrolizidine alkaloids which can lead to hepatotoxicity in livestock's (Acito et al., 2022). This plant also acts as the host of fungus that cause black root rot of pea, citrus and several ornamental plants. This species exhibits wide distribution and considered as invasive species in several regions (Reddy, 2008). Therefore, its distribution and spread should be closely monitored to know its infestation in newly colonized areas. As its present distribution record shows its ecological adaptation to a wide range of habitat ranging from tropical to temperate and also in arid regions.

Acknowledgements: The first two authors acknowledge the University Grants Commission (UGC) for providing financial assistance in the form of JRF. Authors are grateful to Principal, Arya PG College, Panipat and Chairperson, Botany Department, Kurukshetra University, Kurukshetra for providing the necessary facilities required for carrying out the present investigation. The authors also sincerely acknowledge the help rendered by Dr Amit Kumar, Herbarium In-charge, WII, Dehradun for allowing herbarium facilities.

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