Species

To Cite:
Saheena S, Rao BRP. Extended distribution of a Western Ghats endemic Grass, *Eragrostis nilgiriensis* Vivek et al., 2013 to the Arid zone of Peninsular India. *Species* 2026; 27: e9s3269
doi:

Author Affiliation:
[1]Biodiversity Conservation Division, Department of Botany, Sri Krishnadevaraya University, Ananthapuramu, 515003, Andhra Pradesh, India

***Corresponding Author**:
Prof. Boyina Ravi Prasad Rao,
Department of Botany, Sri Krishnadevaraya University, Anantapuramu, Andhra Pradesh, 515003, India
Mobile: 91-9440705602,
E mail: biodiversityravi@gmail.com

Peer-Review History
Received: 03 January 2026
Reviewed & Revised: 15/January/2026 to 09/April/2026
Accepted: 18 April 2026
Published: 27 April 2026

Peer-Review Model
External peer-review was done through double-blind method.

Species
pISSN 2319–5746; eISSN 2319–5754

Extended distribution of a Western Ghats endemic Grass, *Eragrostis nilgiriensis* Vivek et al., 2013 to the Arid zone of Peninsular India

Shaik Saheena[1], Boyina Ravi Prasad Rao[1]*

ABSTRACT

Eragrostis nilgiriensis Vivek et al., 2013; a novel species discovered in Nilgiri hills of Tamil Nadu state, India is collected from Penukonda hills, Andhra Pradesh which represent a typical representative of the arid zone of Peninsular India. Present report extends the species distribution to the state of Andhra Pradesh.

Key words: Andhra Pradesh, Arid zone flora, Significant Indian Grasses

1. INTRODUCTION

The genus *Eragrostis* Wolf belongs to the subfamily Chloridoideae, tribe Eragrostideae, subtribe Eragrostidinae; *Eragrostis* is the largest genus of the subfamily Chloridoideae (Grass Phylogeny Working Group III, 2025) comprising 426 species (POWO, 2026) with C4 metabolism indicating great adaptability to the vast climatic conditions and maximum photosynthetic efficiency at higher temperatures. *Eragrostis* represent 44 species in India (Mao & Dash, 2020) and Pullaiah, (2018) reported 22 species from Andhra Pradesh. Present report of *Eragrostis nilgiriensis* is a new distributional record for the state of Andhra Pradesh.

2. METHODOLOGY

While exploring the grass flora of Andhra Pradesh, we collected curious specimens belonging to *Eragrostis* which after critical study are identified belonging to *Eragrostis niligiriensis*, a novel species discovered from Tamil Nadu by Vivek et al., (2013). After perusal of literature (Pullaiah, 2018; Mao & Dash, 2020; Kellogg et al., 2020; Anil Kumar & Rao, 2022; Jalander & Swamy, 2022) the species is reported endemic to Tamil Nadu and Telangana states of India. Hence, our collection of *Eragrostis nilgiriensis* from Penukonda hills of erstwhile Ananthapuramu district, extends the species distribution to the state of Andhra Pradesh. Collected specimens were made into herbarium following Jain & Rao, (1977) and deposited at the Sri Krishnadevaraya University Herbarium (SKU), Ananthapuramu. Photographic plate with voucher specimen and dissected floral parts are presented in Fig.1.

3. RESULTS & DISCUSSION

Eragrostis nilgiriensis Vivek, G.V.S.Murthy & V.J.Nair in Nordic J. Bot. 31: 700. 2013;

Mao & Dash, Flowering plants of India. 3: 367. 2020; Kellogg et al., Checklist of Indian Grasses. Phytokeys. 163:1.470.2020; Anil Kumar & Rao, Chloridoideae of Southern Peninsular India. 104.2022; Jalander, V. & Swamy, Nelumbo, 64: 2, 266–268. 2022.

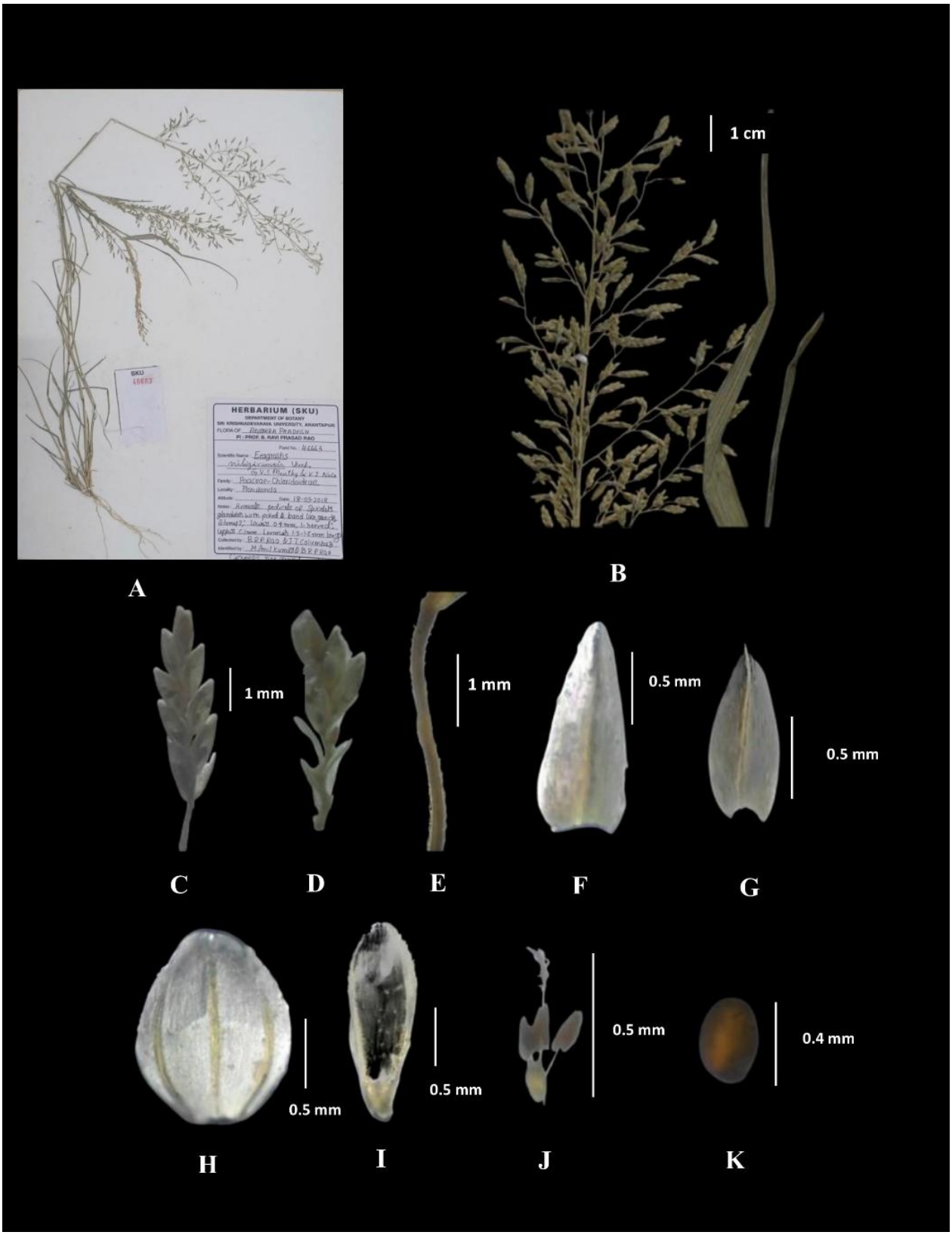

Fig.1: A. Voucher specimen B. Inflorescence C. Spikelet D. Rachis with palea
E. Pedicel F. Upper glume G. Lower glume H. Lemma I. Palea J. Stamens and Pistil K. Caryopsis

Annuals. Culms tufted, erect or geniculate at base, to 40 cm high. Leaf sheaths hairy on margin and at mouth; ligule row of hairs; blades linear-lanceolate, eglandular on margins, 4-8 × 0.2-0.5 cm. Inflorescence of panicles, open, with branches at least the lower alternate, glandular. Spikelets oblong-lanceolate, 2-28-flowered, breaking up from below to above, rachilla tough, paleas persistent on rachilla. Glumes 2, lanceolate, membranous-chartaceous, 1-nerved; lower 0.7-1.2 mm; upper 1-1.5 mm long. Lemmas ovate-elliptic, chartaceous, 3-nerved, 1.3-1.8 mm long. Paleas as long as lemmas, 2-nerved, 2-keeled, scabrous on nerves. Stamens 3; anthers c. 0.3 mm long. Stigmas 3, membranous, feathery. Caryopses ovoid, 0.4-0.8 mm long, not grooved.

Fl. & Fr.: Sept. - Dec.
Habitat: Rare, in hilly areas.
Distribution: India: Tamil Nadu (Mao & Dash, 2020; Kellogg et al., 2020; Anil Kumar & Rao, 2022); Telangana (Jalander & Swamy, 2022; Nagaraju & Prasanna, 2023).

Specimen examined: India, Andhra Pradesh, Sri Satya Sai district (erstwhile Anantapur district), Penukonda, 14°03'23.76'' N - 77°37'55.58'' E, 619 m, 18-09-2018, B. Ravi Prasad Rao and J. Travis Columbus 46663 (SKU).

4. CONCLUSION

Present report of *Eragrostis nilgiriensis*, a Western Ghats grass element extends its distribution to hills of Eastern Ghats, which is a new record to the grass flora of Andhra Pradesh.

Acknowledgement
Thanks to J. Travis Columbus for guiding the field work. First author thanks Andhra Pradesh Medicinal Plant Board for financial support (Small Nurseries Project).

Author contributions
The first author studied the herbarium material, done microscopic observations, and photographed. The senior author collected the specimen and cross checked the published literature for its correct identity and edited the manuscript.

Funding
This research did not receive any external funding like specific grant from funding agencies in the public, commercial, or nonprofit sectors.

Conflict of Interest
The authors declare that they have no conflicts of interest, competing financial interest or personal relationship that could have influenced the work reported in this paper.

Informed consent
Not applicable.

Ethical approval & declaration
In this article, as per the plant regulations followed in the Biodiversity Conservation Division, Department of Botany, Sri Krishnadevaraya University, Ananthapuramu, 515003, Andhra Pradesh, India; the author observed the extended distribution of a Western Ghats endemic Grass, *Eragrostis nilgiriensis* to the Arid zone of Peninsular India. The ethical guidelines for plants & plant materials are followed in the study for species collection, identification & experimentation.

Data and materials availability
All data associated with this study are present in the paper.

REFERENCES

1. Anil Kumar M, Rao BPR. Chloridoideae of Southern Peninsular India. Messrs Bishen Singh Mahendra Pal Singh, Dehra Dun, India, 2022.
2. Jain SK, Rao RR. A Handbook of Field and Herbarium Methods. Today & Tomorrow's Printers and Publishers, New Delhi, India, 1977.
3. Jalander V, Swamy J. Extended distribution of endemic species, *Eragrostis nilgiriensis* Vivek, G.V.S. Murthy & V.J. Nair (Poaceae: Chloridoideae). Nelumbo 2022;64(2):266–268. doi: 10.20324/nelumbo/v64/2022/172431
4. Kellogg E, Abbott JR, Bawa K, Gandhi K, Kailash BR, Ganeshaiah KN, Babu Shrestha U, Raven P. Checklist of the grasses of India. Phytokeys 2020;163:1-560. doi: 10.3897/phytokeys.163.38393.
5. Mao AA, Dash SS. (editors). Flowering Plants of India- An annotated checklist. Dicotyledons. Vol. III. Botanical Survey of India. Kolkata, India, 2020.
6. Nagaraju S, Prasanna PV. Grasses of Telangana, Botanical Survey of India, Kolkata, India, 2023.
7. Grass Phylogeny Working Group III. A nuclear phylogenomic tree of grasses (Poaceae) recovers current classification despite gene tree incongruence. New Phytol. 2025;245(2):818-834. doi: 10.1111/nph.20263.
8. POWO (Plants of the World Online). 2026. Published by Royal Botanical Garden, Kew. https://powo.science.kew.org/ Retrieved on 1 January, 2026.
9. Pullaiah T. Flora of Andhra Pradesh. Scientific Publishers, Jodhpur, India, Vol.5; 2018.
10. Vivek CP, Murthy GVS, Nair VJ. *Eragrostis nilgiriensis* sp.nov. (Poaceae) from Niligiri district, Tamil Nadu, India. Nordic Journal of Botany 2013;3:700-703.