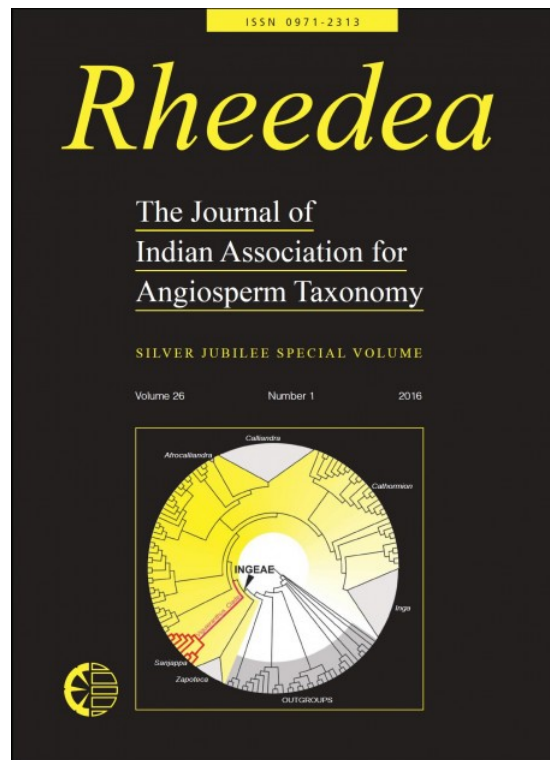




Alopecurus pratensis (Poaceae), a new record for the Indian subcontinent from Kashmir Himalaya

C. Akhter, A.A. Khuroo, S. Rasheed, Z.A. Reshi, G.H. Dar and A.H. Ganie



How to cite:

Akhter C., Khuroo A.A., Rasheed S., Reshi Z.A., Dar G.H. & A.H. Ganie 2016. *Alopecurus pratensis* (Poaceae), a new record for the Indian subcontinent from Kashmir Himalaya. *Rheedia* 26(1): 52-53.

<https://dx.doi.org/10.22244/rheedia.2016.26.01.07>

Received: 10.3.2016

Revised and accepted: 25.6.2016

Published in print: 30.06.2016

Published Online: 30.06.2016



Published by Indian Association for Angiosperm Taxonomy

This volume of *Rheedia* is published with partial financial assistance from Science Engineering Research Board, Government of India, New Delhi



Alopecurus pratensis (Poaceae), a new record for the Indian subcontinent from Kashmir Himalaya

C. Akhter¹, A.A. Khuroo^{1,*}, S. Rasheed, Z.A. Reshi², G.H. Dar³ and A.H. Ganie²

¹Centre for Biodiversity and Taxonomy, Department of Botany, University of Kashmir, Srinagar – 190 006, Jammu and Kashmir, India.

²Department of Botany, University of Kashmir, Srinagar – 190 006, Jammu and Kashmir, India.

³Centre for Biodiversity Studies, Baba Ghulam Shah Badshah University, Rajouri – 185 234, Jammu and Kashmir, India.

*E-mail: anzarak@gmail.com

Abstract

Alopecurus pratensis L. (Meadow foxtail) is reported here as a new record for the Indian subcontinent from the Kashmir Himalaya. This species differs from its closely allied *A. arundinaceus* Poir. in possessing straight or slightly converging glume apices, finely ciliate keel, long and exserted awn, and acute lemma apices. A detailed taxonomic account, including description, identification key and photographs are provided to facilitate its easier field identification.

Keywords: *Alopecurus pratensis*, Himalayas, Indian Subcontinent, New Record, Poaceae

Introduction

The genus *Alopecurus* L. belongs to the tribe Aveneae Dumort. of Poaceae, comprising 39 species (<http://www.kew.org/data/grasses-db/sppindex.htm>). It is represented by 6 species in India (Hooker, 1896; Karthikeyan *et al.*, 1989), 9 in Pakistan (Cope, 1982), and 2 in Nepal (Press *et al.*, 2000).

Stewart (1972) recorded five species of *Alopecurus* from the Kashmir Himalaya, which include *A. aequalis* Sobol., *A. arundinaceus* Poir., *A. geniculatus* L., *A. himalaicus* Hook.f. and *A. myosuroides* Huds. Later workers confirmed the occurrence of these species from various localities in this region (Kachroo *et al.*, 1977; Sharma & Kachroo, 1981; Kaul, 1986). During a recent floristic survey in the alpine habitat of the Gulmarg area (34°03'61" N, 74°23'90" E) located in Baramulla district in the Indian Himalayan state of Jammu and Kashmir, the senior author collected specimens of an unknown grass. After a perusal of literature (Dogar, 1999) and online floras (<http://www.efloras.org>), it was identified as *Alopecurus pratensis* L., hitherto unreported not only for this Himalayan region, but also for the entire Indian subcontinent. The present paper provides a brief taxonomic note, an identification key to distinguish this species from its closely allied species and photographs of the species in order to facilitate its identification.

Key to species

1. Annual; rhizomes absent; spikelets 2–3 mm long **A. aequalis**
1. Perennials; rhizomes present; spikelets 4–8 mm long **2**
2. Glumes straight or slightly converging at apex; lemmas acute at apex; awn long-exserted, arising from lower 1/4th of lemma **A. pratensis**
2. Glumes divergent at apex; lemmas obtuse or truncate at apex; awn usually included, arising near middle of lemma **A. arundinaceus**

Taxonomic account

Alopecurus pratensis L., Sp. Pl.: 60. 1753; S. Lu & S.M. Phillips, Fl. China 22: 365. 2006. *A. antarcticus* Vahl, Symb. Bot. 2: 18. 1791. *A. alpestris* Wahlenb. ex Steud., Nomencl. Bot. ed. 2, 1: 61. 1840. **Fig. 1**

Herb, perennial, shortly rhizomatous. Culms erect, 30–100 cm high. Leaf-sheaths loose, smooth, not or scarcely inflated. Ligules 1.5–4 mm long, obtuse to truncate. Leaf-blades 4–30 × 0.3–0.8 cm, scaberulous above, smooth beneath. Panicles cylindrical, 3.5–9 × 0.6–1 cm. Spikelets elliptic; glumes 4–8 mm long, herbaceous, smooth, connate in the lower 1/4th, membranous, pubescent at margins, keels not winged, finely ciliate, acute at apex, straight or slightly convergent; lemmas 4–6 mm long,



Fig. 1. *Alopecurus pratensis* L.: a. Habit (scale=0.8 cm); b. A portion of leaf-blade (scale=7 cm); c. Ligule (Scale=1 cm); d. Panicle (scale=1 cm); e. Spikelets (scale=4 cm); f. Glumes (scale=10 cm); g. Awn (scale=10 cm); h. Stamens (scale=8 cm); i. Gynoecium (scale=7 cm)

equaling or slightly shorter than the glumes, connate in the lower 1/4th, glabrous or the keels sometimes ciliate apically, acute at apex, awn exserted, 5–7 mm long, geniculate. Anthers 2–3.5 mm long, yellowish. Stigmas 1–1.5 mm long, whitish. Caryopsis 1–1.2 mm long.

Flowering & fruiting: April–August.

Habitat: Grows abundantly on roadsides and forest edges along the alpine meadows at elevations between 2000 and 2800 m.

Distribution: Europe, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Uzbekistan; introduced to Japan, North America, and some other temperate countries as a fodder grass.

Specimens examined: INDIA, Jammu and Kashmir, Baramulla district, Gulmarg, 2700 m, 15.7.2015, C. Akhter 785, 786 (KASH).

Note: The report of *A. pratensis* by Duthie (1888) in his book, 'The fodder grasses of Northern India' was a misidentification, in fact, the species was *A. arundinaceus*.

Acknowledgements

We are thankful to Prof. Inayatullah Tahir, Head, Department of Botany, University of Kashmir, Srinagar, for providing necessary facilities. We are highly thankful to our colleagues: Mudasir Roshan, Insha Muzafar, Gousia Mehraj, Maroof Hamid and Shazia Tabasum, for their suggestions and cooperation throughout the course of study. The help provided by the supporting staff at the Centre for Biodiversity and Taxonomy, University of Kashmir, is highly acknowledged. We are also thankful to two anonymous reviewers whose insightful comments have significantly improved the quality of manuscript.

Literature Cited

- Cope, T.A. 1982.** Poaceae. In: Nasir, E. & S.I. Ali (Eds.), *Flora of Pakistan*, Vol. 143. Pakistan Agricultural Research Council and University of Karachi, Islamabad and Karachi. pp. 1–678.
- Duthie, J.F. 1888.** *The fodder grasses of Northern India.* The Thomason Civil Engineering College Press, Roorkee.
- Hooker, J.D. 1896.** *The Flora of British India.* Vol. 7. L. Reeve & Co. Ltd., London. pp. 237–239.
- Kachroo, P., Sapru, B.L. & U. Dhar 1977.** *Flora of Ladkash.* Bishen Singh Mahendra Pal Singh, Dehra Dun.
- Karthikeyan, S., Jain, S.K., Nayar, M.P. & M. Sanjappa 1989.** *Florae Indicae Enumeratio: Monocotyledonae.* Fl. India, Ser. 4. Botanical Survey of India, Calcutta.
- Kaul, M.K. 1986.** *Weed flora of Kashmir Valley.* Scientific Publishers, Jodhpur.
- Press, J.R., Shrestha, K.K. & D.A. Sutton 2000.** *Annotated checklist of the flowering plants of Nepal.* The Natural History Museum, London.
- Sharma, B.M. & P. Kachroo 1981.** *Flora of Jammu.* Bishen Singh Mahendra Pal Singh, Dehra Dun.
- Stewart, R.R. 1972.** *An annotated catalogue of the vascular plants of West Pakistan and Kashmir.* Fakhri Printing Press, Karachi.

Received: 10.3.2016

Revised and Accepted: 25.6.2016