



## *Agrostis pendryi* (Poaceae: Agrostidinae)—a new species from the Central Himalaya

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### Abstract

*Agrostis pendryi*, a new species from Nepal and northwest India, is described and illustrated. This species is morphologically similar to *A. pilosula* and *A. munroana*, but differs from them by its shorter, weak and straight awn, and palea less than half the length of the lemma.

**Key words:** *Agrostis griffithiana*, *A. munroana*, *A. pilosula*, *Calamagrostis*, Nepal, NW India, taxonomy

### Introduction

Following recent studies of the taxonomy of *Agrostis* Linnaeus (1753: 61), *Calamagrostis* Adanson (1763: 31), and *Deyeuxia* Clarion ex Beauvois (1812: 43) (Poaceae: Agrostidinae), three new species have been described (Paszko 2012a, Paszko & Pendry 2013b, Paszko & Chen 2013), new national and regional records have been documented (Howard *et al.* 2009, Paszko *et al.* 2013, Nobis *et al.* 2014a, 2014b, Paszko 2014b, 2014c), and many nomenclatural and taxonomic changes have been made (Paszko & Nobis 2010, Paszko & Ma 2011, Paszko 2012b, 2013, 2014a, 2014b, 2014c, 2014d, Paszko & Pendry 2013a, Paszko & Soreng 2013).

Within *Agrostis*, there is a group of species distinguished by lemmas with more or less pilose dorsal surfaces. In South Asia, this group is represented by *A. burmanica* Bor (1958: 416), *A. griffithiana* (Hooker 1896: 263) Bor (1960: 387), *A. munroana* Aitch. & Hemsl. in Aitchison (1882: 192), *A. pilosula* Trinius (1841: 372), and *A. schmidii* (Hooker 1896: 264) Bor (1960: 389). Three species from this group occur in the Himalayas, *A. griffithiana*, *A. munroana*, and *A. pilosula* (Hooker 1896, Bor 1960). Of the others, *A. burmanica* is known only from its type locality in Mount Victoria, Burma, and its lemma is glabrous on the dorsal surface but hairy on the margins. *Agrostis schmidii* is also known only from its type locality in Madras, SE India. The lemmas of *A. griffithiana*, *A. munroana*, *A. pilosula* and *A. schmidii* are hairy all over (Bor 1960). Bhattacharya & Jain (1985) described two new taxa within this group of species, *A. tungnathii* Bhattacharya & Jain (1985: 204) and *A. munroana* subsp. *indica* Bhattacharya & Jain (1985: 205). However, Clayton *et al.* (2014) accepted the former in synonymy under *A. pilosula* and the latter in synonymy under *A. munroana*. Recently, Paszko & Pendry (2013a) clarified the taxonomy of *A. griffithiana* synonymizing *A. wardii* Bor (1949: 444) within it, and typifying Hooker's *A. griffithiana*. This paper provides the description of a new species from the Central Himalaya whose lemma is hairy all over, except at the base.

*Agrostis pendryi* Paszko, *sp. nov.* (Figs 1–3)

“*Agrostis munroana*” auct. non Aitchison & Hemsley in Aitchison (1882: 192): Rajbhandhari (1985: 71).

Diagnosis:—Differs from *Agrostis pilosula* by its short, weak, straight awn inserted around the midpoint of the back of the lemma, and differs from *A. munroana* by its shorter palea 0.5–0.9 mm long, and lower ratio of palea to lemma length (0.35–0.58).

Type:—NEPAL. **Solu Khumbu:** Tarngga to Langmuche, 27°51'46" N, 86°36'40" E, 4150 m, E facing slope at the right side of the Langmuche stream, associated with *Salix*, *Juniperus* and *Rhododendron lepidotum*, *R. campanulatum*, *R. anthopogon*, 23 September 2005, M.F. Watson, K.R. Rajbhandari, K.K. Shrestha, D. Knott, C.A. Pendry, S.K. Acharya, U. Koirala, L.N. Mandar, N. McCheyne, R.C. Poudel, S. Rajbhandary, S. Vaidya DNEP3 BX226 (E00256157!).

Perennial, tufted. Culms 11–46 cm tall, unbranched, slender, erect, glabrous or scaberulous, green, nodes 2–4. Sheaths smooth or sub-scaberulous, terete, striate, green, collars glabrous; ligule 0.3–2.5 mm long, truncate, blunt. Cauline

Sar—Mangalbare—Lam Pokhari—Minchin Dhap, 28 October 1963, *Hara et al. 6302067* (TI). **Taplejung**, Baroya Khimty—Thakma Khola, 12 November 1963, *Hara et al. 6302062* (TI); Helok—Baroya Khimty, 15 November 1963, *Kanai et al. 6302069* (TI). **Terhathum**, Minchin Dhap—Mul Pokhari, 29 October 1963, *Hara et al. 6302068* (TI). COUNTRY UNKNOWN: Himalaya bor. occ., *Thomson s.n.* (K); location unknown, as ‘*Agrostis hookeriana* Munro’, *s.d., s.c.* (K, LE, W); as ‘*Agrostis nervosa* var. *aristata*’, *s.d., Falconer s.n.* (W); Himal. bor. occ., 1524–3048 m, as ‘*Agrostis hookeriana* Munro’, *Thomson s.n.* (W).

### Key to *Agrostis pendryi*, *A. griffithiana*, *A. munroana*, and *A. pilosula*

- |    |  |                        |
|----|--|------------------------|
| 1. | Palea 0.4–1 mm long, ratio of palea to lemma length 0.18–0.58 .....  | 2                      |
| -  | Palea 1.2–1.9 mm long, ratio of palea to lemma length 0.65–1 .....   | 3                      |
| 2. | Awn 1.9–5.8 mm long, well developed, geniculate and usually twisted at the base.....   | <i>A. pilosula</i>     |
| -  | Awn 0.3–1.8 mm long, straight, weak and short, not visible beyond the glumes .....   | <i>A. pendryi</i>      |
| 3. | Lower glumes 3.1–4.2 mm long; awn well developed, slightly twisted at the base, geniculate in the middle, always exerted from the glumes; tip of lemma truncate and 2(–4)-aristulate ..... | <i>A. griffithiana</i> |
| -  | Lower glumes 1.8–3 mm long; awn straight, weak and short, not visible beyond the glumes; tip of lemma toothed or truncate .....  | <i>A. munroana</i>     |

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