Summary: *Arthraxon microphyllus* (Trin.) Hochst. (*Poaceae*) is newly recorded from Myanmar. The description and key to the species of the genus *Arthraxon* in Myanmar are provided. This plant is characterized by having few racemes, small leaf blades, and strongly ribbed on the dorsal surface of lower glume. They have been reported to be found in the dry grassy slopes of the alpine region in areas on and around the Himalayan and Hengduan Mountains in Nepal, Bhutan, northeastern India, northern Thailand and China. The specimens in Myanmar were collected in the alpine area of Chin State in 2012 during a plant inventory research for contribution to the flora of Myanmar by Myanmar-Japanese cooperative program. Work was conducted under the Memorandum of Understanding (MoU) between the Forest Department, Ministry of Natural Resources and Environmental Conservation, Myanmar and the Kochi Prefectural Makino Botanical Garden, Japan.

*Arthraxon microphyllus* (Trin.) Hochst. is a short-lived creeping grass mainly found on the dry mountain slopes, between 2000–3000 m in elevation (Chen and Phillips 2006). It is distributed in Bhutan, northeastern India, Nepal, northern Thailand and China (Kumar 1996, Shukla 1996, Noltie 2000, Chen and Phillips 2006). During our taxonomic work on the flora of Myanmar, we have found two specimens of this species (Fig. 1). Since this species has not been reported from this area, here we have recorded this taxon with description and key to taxa of the genus in Myanmar.

*Arthraxon* P. Beauv. is a small genus with about 10 species existing mainly in the Old World tropics. Especially, India is known as a center of this genus (Clayton and Renvoize 1986). Concerning flora of Myanmar, Rhind (1945) reported five species, i.e., *A. breviaristatus* Hack. (=*A. typicus*), *A. nudus* (Nees ex Steud.) Hochst. (=*A. hispidus*), *A. submuticus* (Nees ex Steud.) Hochst. (=*A. hispidus*), *A. hispidus* (Thunb.) Makino and *A. lancifolius* (Trin.) Hochst. Following his taxonomic work, Bor (1960) conducted taxonomic study in this area. In his list, Burma is listed in the distribution areas of two taxa, i.e., *A. lancifolius*, *A. nudus* at least. While, Kress et al. (2003) reported five species from Myanmar, that is *A. breviaristatus*, *A. ciliaris* P. Beauv., *A. hispidus*, *A. lanceolatus* (Roxb.) Hochst. and *A. lancifolius*. In Flora of China (Chen and Phillips 2006), they recorded the following five taxa in Myanmar, *A. hispidus*, *A. lancifolius*, *A. typicus*, *A. nudus*, *A. prionodes* (Steud.) Dandy. Based on this literature and our research, eight species would be listed in the flora of Myanmar, *A. hispidus*, *A. lancifolius*, *A. typicus*, *A. nudus*, *A. prionodes* and *A. castratus*.

*Arthraxon microphyllus* is sometimes treated as a synonym of *A. lancifolius* (Rhind 1945, Bor 1960, Kanjilal and Bor 2005), however, these are quite different in the venation of the lower glume (faint nerves in the later and pleat or rib-like in the former; Fig. 2).
Fig. 1. *Arthraxon microphyllus* (Trin.) Hochst. collected in Myanmar (K. Fujikawa & al. 090570, TKPM BSP082336).
**Key to Arthraxon of Myanmar**
(Excerpted and modified from Bor 1960)

1a. Lower glume of sessile spikelet 2-keeled, sometimes almost flat on the back; spikelets not laterally compressed ........................................ 2
1b. Lower glumes of sessile spikelets rounded on the back, not keeled; spikelets laterally compressed .................................................. 3

2a. Lower glume flat on the back or slightly convex with strongly marked nerves, pectinate on the keels from base to apex but not muricate on the intermediate nerves ...... .................................................. *A. lanceolatus*
2b. Lower glume rounded on the back, often cylindrical but keeled, pectinate on the keels and often muricate on the intermediate nerves as well near the tip ...... *A. prionodes*

3a. Pedicelled spikelets, at least in the upper part of the raceme, developed ........................................... 4
3b. Pedicelled spikelets not developed; pedicels more or less reduced .................................................. 5

4a. Racemes usually 5–10, silky-silvery; stamens 2; anthers 0.5 mm long, peduncles puberulous, spikelets 2.5–3 mm long ........... ...................................................... *A. lancifolius*
4b. Racemes 2–3, lower glume strongly ribbed on the dorsal surface, peduncles glabrous, spikelets up to 3.5 mm long ......................... ...................................................... *A. microphyllus*

5a. Stamens 2 ........................................ *A. hispidus*
5b. Stamens 3 .............................................. 6

6a. Anthers up to 0.5 mm long, spikelets 3–4 mm long ..................................................... 7
6b. Anthers over 1.5 mm long, spikelets 2.5–8 mm long ..................................................... 8

7a. Pedicel 1.5–2 mm long, very slender .......... .......................................................... *A. nudus*
7b. Pedicel a minute glabrous point .............. .......................................................... *A. hispidus*

8a. Spikelets 6–8 mm long, glumes almost crustaceous in texture .................. *A. castratus*
8b. Spikelets not over 5 mm, glumes not crustaceous ......................... *A. typicus*

Here we treated *Arthraxon micans*, *A. quartinaus* and *A. ciliaris* as synonyms of *A. hispidus* following the treatment of Flora of China (Chen and Phillips 2006). In turn, *A. sikkimensis* is synonymous with *A. microphyllus*. *Arthraxon breviaristatus* is synonymous with *A. typicus*.

**Description**


*Arthraxon sikkimensis* Bor in Kew Bull. 6: 447 (1951). **Type**: INDIA. Sikkim. Lachung, 2800 m. (Gammie 1079, K000245920–holotype, n.v., photo!).

Annual. Culms loosely tufted, erect, creeping near the base, ca. 10–20 cm tall, ca. 0.2 mm in diameter at the middle. Nodes pilose, rooted from lower part. Leaves green. Sheath rounded on the back, pilose. Ligule membranous, 0.5–0.7 mm long, obtuse. Leaf blade lanceolate, 3–11 mm long, 0.8–3 mm wide, pilose on both surfaces. Inflorescence racemose, 1–1.5 cm long, ca. 4 mm wide, with one to three racemes. Racemes, ca. 1 cm long, clustered at the apex of the culm, ascending, axis pilose, joint of inflorescence hairy. Spikelets paired. Pedicelled spikelet rudimentary, reduced to a lower glume, glume ca. 1.7 mm long. Pedicels of pedicelled spikelet long hairy near the top. Sessile spikelet lanceolate, somewhat flattened, 3–4 mm long, ca. 0.7 mm wide, callus pubescent. Lower glume lanceolate, coriaceous, strongly seven-nerved with deep grooves between them, scabrous near the apex, yellowish brown, apex bidentate. Upper glume lanceolate, coriaceous, glabrous, slightly longer than the lower glume, ca. 4 mm long, 5-nerved, apex attenuated. Spikelet 2-flowered, lower floret sterile and the other hermaphrodite. Sterile lemma ca. 1.7 mm long, membranous, nerveless, apex acute. Fertile lemma membranous, ca. 2 mm long, nerveless,
apices dentate, glabrous. Palea vanishing. Awn geniculate, ca. 1 cm long, scabrous. Stigma feathery, brown. Caryopsis oblong, ca. 0.8 mm long, light brown. Anthers 2, ca. 0.6 mm long. Lodicule absent.

Specimens examined: MYANMAR. Chin State. 7 miles from the entrance of Natma Taung National Park, along the roadside between Kampetlet and 10 miles base camp of National Park, Natma Taung National Park. 2,435 m alt., 21°13′20.4″N, 93°58′17.3″E (Kazumi Fujikawa & al. 090151, MBK, QBG, RAF, TI, TKPM); 38 miles from Mindat, along the roadside between Mindat and Matupi. ca. 2,543 m alt., 21°33′58.3″N, 93°48′01.5″E (Kazumi Fujikawa & al. 090151, MBK, QBG, RAF, TKPM).

The first set of the voucher specimens were retained in the office of Natma Taung National Park, Nature and Wildlife Conservation Division, Forest Department, Ministry of Natural Resources and Environmental Conservation, Myanmar.

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**Literature cited**


茨木 靖\(^a\)，M. Norsaengsri\(^b\)，藤川和美\(^c\): ミャンマー新産の Arbbraxon microphyllus (イネ科)

ミャンマー調査で、これまで同地で記録の無かった Arbbraxon microphyllus (Trin.) Hochst. (イネ科)を見いだしたので、形態的な記載と検索表、類似種からの識別点について報告する。本種は、長さ 3–11 mm 程の極めて小型の葉身を持ち、花序の総は少なく 2–3 本であり、加えて第一包穎の背面に明瞭な狭帯状の筋が多数平行に走る点で、同属の他種と識別できる。これまでにネパール、ブータン、インド東北部、タイ北部および中国（雲南省）から知られており、主としてヒマラヤを中心とした地域に分布域を持つ植物の一つと考えられる。なお、今回報告する植物は、高知県立牧野植物園およびミャンマー連邦天然資源環境省の研究協定のもとでミャンマーの植物目録作成を目的とした 2012 年の調査において、ミャンマー西部の Natma Taung National Park 周辺において採集されたものです。

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