Polytrias indica (Houtt.) Veldkamp, a Newly Naturalized Grass in Taiwan

新歸化的台灣禾草－單序草

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Abstract

A newly naturalized species, *Polytrias indica* (Houtt.) Veldkamp, was found in southern Taiwan with the earliest collection made in 2002. It is closely related to the genus *Eulalia* Kunth. Several specimens of *P. indica* in Taiwan's herbaria were misidentified as *Eulalia leschenaultiana* (Decne.) Ohwi. Nevertheless, *P. indica* is distinguishable by its unusual arrangement of three spikelets, two of which are sessile and one pedicellate on the node. This paper provides a description of this newly naturalized species with a line drawing for identification.

摘　要

單序草(*Polytria indica*)是近年來在台灣南部新歸化的禾草，最早的標本館紀錄採自 2002 年。

此屬與金茅屬關係密切，事實上單序草的標本常被誤認爲是細稈金茅。然而我們可以根據單序草小穗的特殊排列方式來加以區別，單序草在花序軸的每個節上，長有 2 個無柄及 1 個有柄共 3 個小穗。本文增補此種爲新歸化之台灣產禾本科植物，並提供其物種描述及手繪圖供鑑定參考。

Key words: Andropogoneae, *Polytrias indica*, Poaceae, Taiwan

關鍵詞：蜀黍族、單序草、禾本科、台灣

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Introduction

Poaceae is one of the largest families of vascular plants in Taiwan as well as the world. According to the second edition of *Flora of Taiwan* (Hsu 2000), the species of Andropogoneae of Poaceae in Taiwan have spikelets paired on the nodes of inflorescence axis with the exception of *Chrysopogon aciculatus* (Retz.) Trin., which has three spikelets, one sessile and two pedicellate on a node. Recently, a newly naturalized species of Andropogoneae, *Polytrias indica* (Houtt.) Veldkamp, was found in southern Taiwan, and the earliest collection was made in 2002. The genus *Polytrias* Hack. is monotypic and is widely distributed throughout Myanmar, Vietnam, Indonesia, Malaysia, southern China, the Philippines, New Guinea, tropical North and East Australia (Clayton and Renvoize 1986; Watson and Dallwitz 1992; Chen and Phillips 2006). It is closely related to the genus *Eulalia* Kunth (Clayton and Renvoize 1986; Veldkamp 1991). In fact, some specimens of *P. indica* preserved in Taiwan's herbaria were usually misidentified as *Eulalia leschenaultiana* (Decne.) Ohwi. Nevertheless, we can easily distinguish them by the diagnostic characters of spikelet arrangement of *P. indica* (Clayton and Renvoize 1986), which has three spikelets on one node. Specifically, two spikelets are sessile and one pedicellate. This paper provides a description of *P. indica* with its line drawing for identification.

Taxonomic Treatment

Polytrias indica (Houtt.) Veldkamp, Blumea 36: 180. 1991; Chen & Phillips in Chen *et al.* (eds.), Fl. China 22: 593. 2006.

單序草(Figure 1)

Phleum indicum Houtt., Nat. Hist. II, 13: 198. t. 90, f. 2. 1782. --- Type: *Hb. Houttuyn s.n.* (G, holo)

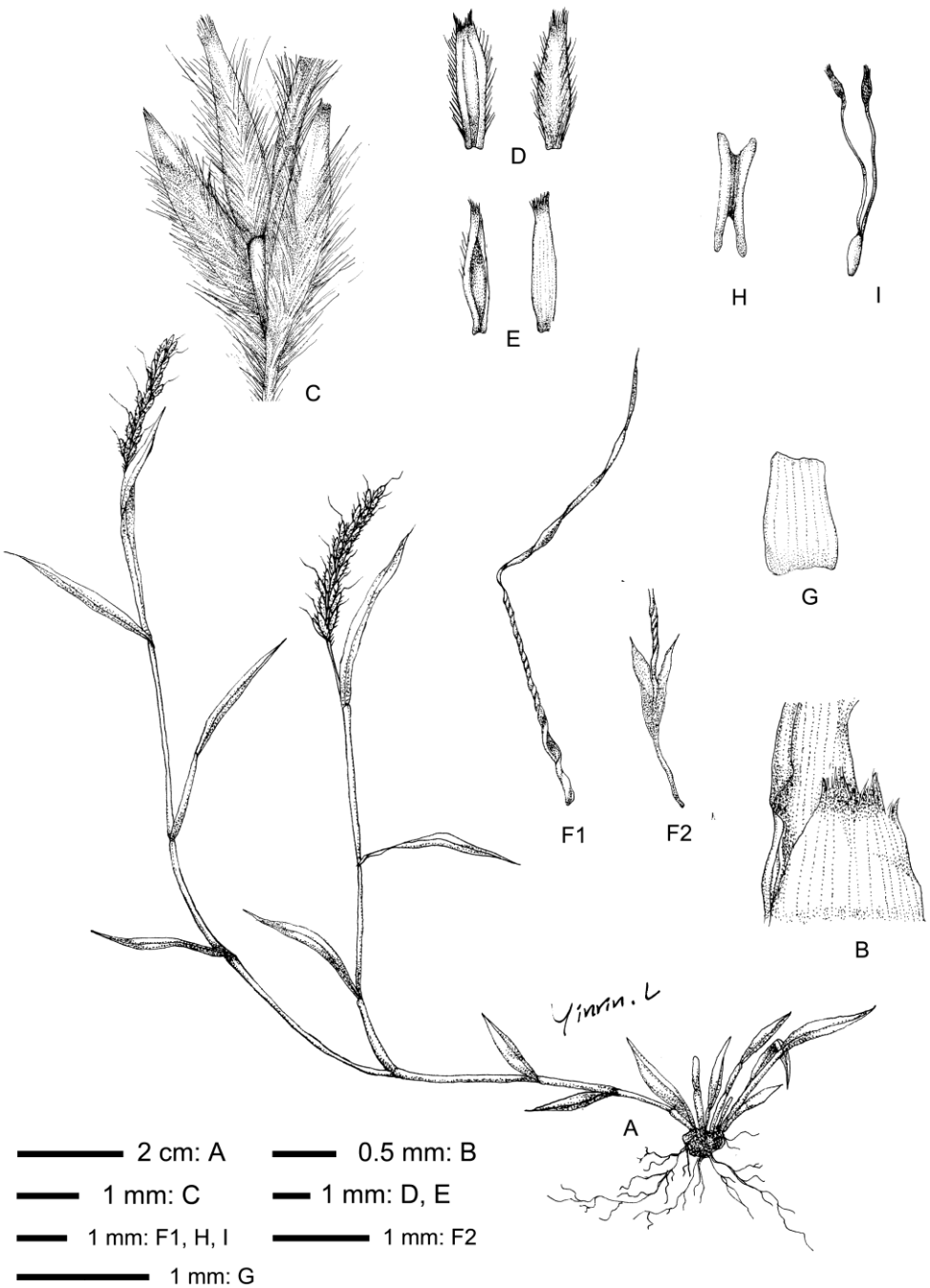

Fig.1. A, habit; B, joint of leaf sheath and leaf blade; C, part of raceme; D, lower glume; E, upper glume; F, upper lemma with awn; G, upper palea; H, anther; I, pistil.

Perennials, mat-forming or stoloniferous, culms decumbent, rooting from lower nodes, slender, 10-30 cm tall, glabrous, culm nodes glabrous. Leaf sheaths shorter than internodes, surface glabrous, outer margins glabrous; joint between sheath and blade glabrous; ligule a ciliolate membrane, 0.5-1 mm long; blades linear, flat, 2-5 cm long, 2-4 mm wide, margins scabrous, apex acuminate, surface moderately pilose on both sides. Inflorescence a single raceme, 2-5 cm long; rachis fragile, internodes linear, 2-2.5 mm long, pedicels linear, flattened, 2 mm long, shorter than spikelets, ciliate. Spikelets bisexual, grouped, 2 sessile and 1 pedicellate at each node, pedicellate one subequal to the sessile ones, dorsally compressed, oblong, 3-3.5 mm long. Lower floret absent, upper floret fertile. Lower glume oblong, 3-3.5 mm long, chartaceous, dorsally flat; 4-veined, 2-keeled, surface pilose below the middle, usually extending slightly beyond apex; apex truncate, ciliate; awnless. Upper glume oblong, 3-3.5 mm long, chartaceous, 1 to 3-veined, midvein keeled, surface pubescent below the middle, apex truncate, ciliate, awnless. Upper lemma ovate or oblong, 1 mm long, surface smooth, apex 2-toothed, tipped with hairs, awned, awn from a sinus, 8-12 mm long, column twisted. Upper palea oblong, 1-1.2 mm long, hyaline. Anthers 3, 2-2.5 mm long.

Distribution: Myanmar, Vietnam, Indonesia, Malaysia, southeastern China, the Philippines, New Guinea, tropical North and East Australia.

Habitat: Grassy places on mountain slopes, grassy spaces, lawns, wastelands, roadsides; introduced in many other countries as lawn grass.

Taiwan specimen examined:

KAOHSIUNG: Niaosung Wetland Park, *Ku 1672, Dec. 24, 2002* (TNM); Niaosung, *Jung 2321, Feb. 04, 2008* (TAIF). PINGTUNG: Chienfeng Park, *Yang 42767, Jan. 4, 2009* (PPI); Juikuang Park, *Chen 6930, Dec. 22, 2011* (TAIE).

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