

A NEW SPECIES OF *THRASYA* (POACEAE: PANICOIDEAE) FROM THE MOSQUITIA OF NICARAGUA AND HONDURAS

Recent work for the account of the Poaceae for the *Flora Mesoamericana* has brought to light a previously undescribed species of *Thrasya*.

Thrasya mosquitiensis Davidse & Burman, sp. nov. TYPE: Nicaragua. Zelaya: Along banks and surrounding gallery forest of Río Likas near Silima Lila, ca. 14°30'N, 83°50'W, 50 m, 5 Mar. 1979, *John J. Pipoly 4107* (holotype, MO; isotypes, HNMN, SP, US). Figure 1.

Gramen perenne; culmi 65–110 cm longi; ligula membranacea, 1.5–2.4 mm longa; laminae lineares, 16–32 cm longae, 9–16 mm latae; racemus singularis, 10–16 cm longus; rhachis alata, 2.0–2.8 mm lata; spiculæ 3.4–4.0 mm longae, glabrae, binatae, in seriebus unis dorso ad dorso dispositis, pedicelli inaequales; gluma infera 0.6–2.5 mm longa; gluma supera 2.8–3.4 mm longa; lemma inferum subinduratum, sulcatum; flos inferus staminatus; lemma superum induratum, papillosum minute; flos superus perfectus.

Perennial herb; culms 65–110 cm long, erect, sometimes rooting at the lower nodes, the internodes slightly compressed, hollow, mostly glabrous, the upper portions and the nodes appressed pubescent. Sheaths glabrous or puberulent toward the apex, keeled, the collar appressed pubescent; ligule a membrane 1.5–2.4 mm long; blades 16–32 cm long, 9–16 mm wide, linear, flat, glabrous or puberulent toward the base below, acuminate, the base slightly rounded to gradually narrowed; leaf subtending the inflorescence distinctly smaller. Racemes terminal and axillary, solitary, 10–16 cm long, arcuate, usually well-exserted from the sheath; peduncles puberulent near the tip or entirely glabrous; rachis 2.0–2.8 mm wide, winged, dorsally and ventrally glabrous, the margin minutely scabrous, the base with an inconspicuous tuft of hairs. Spikelets 3.4–4.0 mm long, 1.4–1.8 mm wide, glabrous, elliptic, broadly acute, arrayed in one row, oriented back-to-back, paired, the pairs borne on alternate sides of the rachis; pedicels puberulent, unequal, the upper 1.8–2.0 mm long, its lower half adnate to the rachis, the lower 0.2–0.4 mm long; glumes with the bases clasping and slightly swollen; lower glume dimorphic between the short- and long-pedicellate spikelets, variable in the short-pedicellate spikelets, 0.6–2.5 mm long, triangular, membranous to herbaceous, 0–1-nerved,

obtuse to acute or aristate, uniform in the long-pedicellate spikelets, 0.7–1.2 mm long, triangular, membranous, nerveless, acute; upper glume 2.8–3.4 mm long, ca. $\frac{3}{4}$ as long as the spikelet, herbaceous, 5(–7)-nerved; lower lemma as long as the spikelet, subindurate, deeply sulcate on the back, sometimes splitting at maturity, 6(–7)-nerved, the midnerve often absent, the inner pair of nerves well-developed, slightly keeled and crested toward the tip; lower palea as long as the lower lemma, 2-nerved and 2-keeled; lower flower staminate; lodicules 2, the stamens 3, the anthers 1.3–1.9 mm long, purple; upper lemma 3.0–3.6 mm long, 1.4–1.6 mm wide, indurate, elliptic, minutely papillose, the tip bearing a tuft of minute hairs; upper palea of the same texture as the upper lemma; upper flower perfect: lodicules 2, the stamens 3, the anthers 1.4–1.8 mm long, purple, the styles 2, separate, the stigmas plumose, purple; caryopsis (immature) ca. 1.7 mm long, 1.1 mm wide, the embryo nearly $\frac{1}{2}$ as long as the caryopsis, the hilum narrowly elliptic, ca. $\frac{1}{3}$ as long as the caryopsis.

Paratypes. NICARAGUA. ZELAYA: Comarco del Cabo, Kornuk Creek, Puente Pozo Azul, 10 Jul. 1972, *Seymour 5802A* (MO), *5803* (MO). HONDURAS. GRACIAS A DIOS: 5 km de Puerto Lempira, 28 Jan. 1984, *Nelson & Cruz 8621* (TEFH).

The generic placement of this new species must be considered since the limits of the genus *Thrasya* have always been difficult to circumscribe precisely. The core group of *Thrasya* is composed of species that have the following features: 1) winged, one-sided, solitary racemes; 2) solitary spikelets arrayed in a single row; 3) back-to-back orientation of the spikelets, i.e., the backs of the lower glume and lower lemma of the short-pedicellate spikelet face the backs of these same structures of the long-pedicellate spikelet. The problem of the outlying species that show varying intermediate characteristics between the core group of *Thrasya* and the *Decumbentes* group of *Paspalum* (sensu Chase, 1929) has been discussed in detail by Burman (1982, in press).

In the core group of *Thrasya*, which clearly consists of the most specialized species in the genus, the fundamentally paired nature of the spikelets is superficially lost through the fusion of both the long and short pedicels to the rachis

so that the free portion of all the pedicels is basically the same length.

In *T. mosquitiensis* the spikelets are arranged in a single row in a back-to-back orientation along a winged, one-sided, solitary raceme. Although the spikelets are arranged in a single row, the spikelets are clearly paired and the longer pedicel is only partially fused to the rachis (Fig. 1). The spikelet pairs themselves are arranged alternately along the rachis. With respect to the distinctly paired spikelets, *T. mosquitiensis* is similar to the *Decumbentes* group of *Paspalum*. However, in *T. mosquitiensis* the basal half of the upper pedicel is adnate to the rachis, in contrast to the *Decumbentes* group where both pedicels of a spikelet pair remain completely free. In addition, in *Decumbentes* species the spikelets are arranged in several rows and the regular back-to-back position of the spikelets is never attained. Therefore, although *T. mosquitiensis* is intermediate between the core group of *Thrasya* and the *Decumbentes* group of *Paspalum*, similarities with *Thrasya* are greater, and this is the reason for its inclusion in that genus.

There is a tendency for the spikelets to be dimorphic in the development of the lower glume within single inflorescences. In the short-pedicellate spikelets the lower glume may vary from nerveless, membranous, and obtuse to 1-nerved, herbaceous, and aristate. In the long-pedicellate spikelets the lower glume is uniformly nerveless, membranous, and acute. Also, the length of the upper glume relative to the upper lemma is greater in the short-pedicellate spikelet than in the long-pedicellate spikelet. This is most easily observed as the length of the upper lemma that is not covered by the upper glume: (0.1–)0.4–0.5 mm in the short-pedicellate spikelets, 0.5–0.7 mm in the long-pedicellate spikelets. Although such dimorphism is characteristic of *Paspalum* species of the *Decumbentes* group, it also occurs in two *Thrasya* species: *T. campylostachya* (Hackel) Chase and *T. petrosa* (Trin.) Chase.

Thrasya mosquitiensis seems to be most closely related to *T. campylostachya*, the only other Mesoamerican species with glabrous spikelets. *Thrasya mosquitiensis* is distinguished from the latter by the larger size of all its parts, most noticeably the spikelets (3.4–4.0 mm vs. 2.6–3.0 mm long and 1.4–1.8 mm vs. 0.8–1.5 mm wide), racemes (10–16 cm vs. 4–10 cm long), and blades (9–16 mm vs. 3–10 mm wide and 16–32 cm vs. 6–20 cm long). Moreover, the upper glume of the long-pedicellate spikelet is proportionally

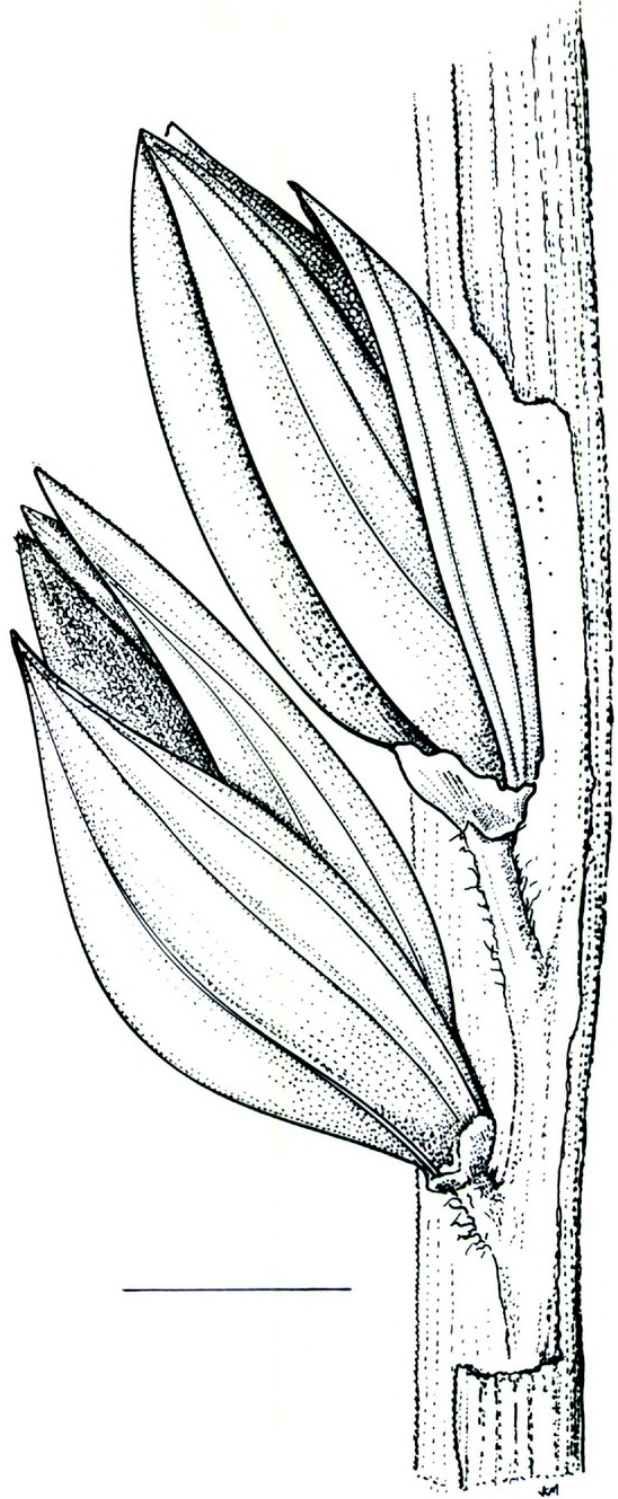


FIGURE 1. Spikelet pair of *Thrasya mosquitiensis* Davidse & Burman showing the back-to-back orientation of the spikelets, winged rachis (partially removed on one side), and partially adnate pedicel of the long-pedicellate spikelet. Scale line = 1 mm.

longer ($\frac{3}{4}$ vs. $\frac{1}{2}$ – $\frac{2}{3}$ the length of the spikelet), broader, more clasping, and less papery in texture. Finally, the upper pedicel in *T. mosquitiensis* tends to be less adnate to the rachis than



Davidse, Gerrit and Burman, Alasdair G. 1987. "A New Species of *Thrasya* (Poaceae: Panicoideae) from the Mosquitia of Nicaragua and Honduras." *Annals of the Missouri Botanical Garden* 74, 434–436.

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