

THREE NEW RECORDS OF POACEAE FOR COSTA RICA

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ABSTRACT

Three new records of Poaceae for Costa Rica are reported here — the exotic *Bothriochloa bladhii* and the natives *Enteropogonopsis chloridea* and *Panicum dichotomiflorum*.

Poaceae in Costa Rica has been reviewed several times since the mid-19th century (Standley 1937; Pohl 1990; Morales 2003). The latest treatment (Morales 2003) recorded the presence of about 495 species in the country, 80% being native. Since 2003, two new records of exotic species have been documented: *Chloris virgata* (Lobo 2008) and *Microstegium vimineum* (Moore 2008) and a new species was discovered: *Zea vespertilio* (Gómez-Laurito 2013). Other species are recorded in herbaria (*Aristida adscensionis* (CR, MO), *Heteropogon contortus* (MO), *Eriochloa aristata* var. *boxiana* (CR), *Panicum venezuelae* (CR, MO), and *Raddiella esenbeckii* (CR, MO).

New records of Poaceae for Costa Rica were discovered during the identification of specimens brought for determination to the Herbario Nacional de Costa Rica (CR), using floras from nearby countries (Flora de Nicaragua) and regional floras (Flora Mesoamericana). Images and spikelets samples were sent to Poaceae curator Gerrit Davidse (MO), who corroborated the identifications. Complete sets of voucher specimens are housed at CR; duplicates will be sent to MO.

BOTHRIOCHLOA BLADHII (Retz.) S.T. Blake

Voucher specimens. **Guanacaste.** Bagaces, 10°29'58" N, 85°33'57" W, 0-100 m, Jun 2017, *Chinchilla* s.n. (CR-4467959, Figure 1A). **Puntarenas.** Osa, Palmar, 08°54'28" N, 83°28'50" W, 50 m, 10 May 2011, *Lobo et al.* 2864 (CR-291765).

Bothriochloa bladhii is found in Old World tropics and subtropics, Europe (cultivated and naturalized), the New World, Asia, and Australia. In Mesoamerica the species is known in México, Belize, Honduras, Nicaragua, Costa Rica (now), and Panamá. It grows in cultivated areas and disturbed open secondary vegetation at 0-800 meters elevation.

The first Costa Rica collection of *Bothriochloa* was made in 1980 (*Pohl 13891*, CR) and recorded by Pohl (1990) as *B. pertusa*. At this time this genus accounted for three species in the country, all exotic: *B. bladhii*, *B. ischaemum* (L.) Keng and *B. pertusa* (L.) A. Camus. In Costa Rica these three species can be separated by the following contrasts.

Key to the species of *Bothriochloa* in Costa Rica

- 1. Sheath hirsute **Bothriochloa pertusa**
- 1. Sheath glabrous.
 - 2. Axis of the inflorescence 6–20 cm **Bothriochloa bladhii**
 - 2. Axis of the inflorescence 0.5–2 cm **Bothriochloa ischaemum**

ENTEROPOGONOPSIS CHLORIDEA (J. Presl) Wipff & R.B. Shaw.

Voucher specimen. Guanacaste. Nandayure, San Pablo, 9°58'10" N, 85°11'25" W, 0-100 m, Jan. 2015, *García s.n.* (CR-4467961, Figure 1B).

Enteropogonopsis chloridea is native to the New World. In Mesoamerica it is recorded in Mexico, Honduras, Nicaragua, and Costa Rica (now). It grows in grasslands and open fields at 0-1000 meters. This is the first report of this genus and species in Costa Rica and represents the southernmost limit of its distribution.

PANICUM DICHOTOMIFLORUM Michx.

Voucher specimen. Alajuela. San Carlos, Venecia, 10°21'40" N, 84°15'30" W, 600 m, Jun 2017, *Agüero s.n.* (CR-4467960, Figure 1C).

This species occurs from southeastern Canada to Argentina and the Antilles, introduced in Europe, New Zealand, and Japan. In Mesoamerica is recorded in Mexico, Honduras, Nicaragua, Costa Rica (now), and Panama. It grows in open disturbed areas, prairies and savannas, glades, gravel bars along rivers at 0-100 meters.

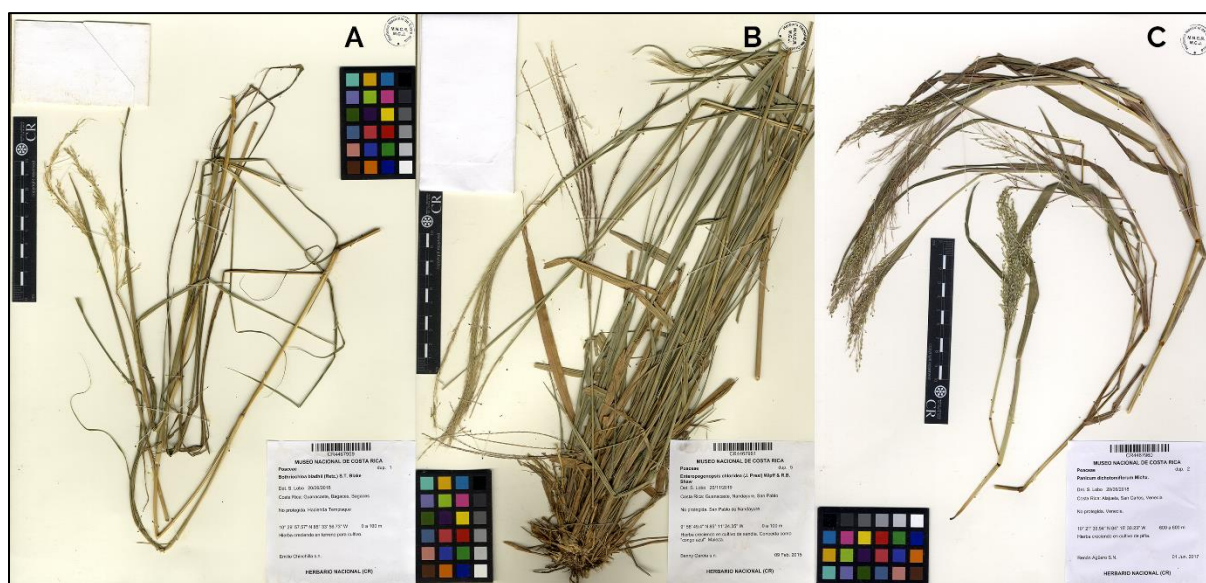


Figure 1. Voucher specimens. A. *Bothriochloa bladhii*. B. *Enteropogonopsis chloridea*. C. *Panicum dichotomiflorum*.

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