

## **PANICUM DICHOTOMIFLORUM MICHAUX, A NEW ELEMENT IN THE HUNGARIAN FLORA**

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(Received 4 February, 2004)

A new element of the Hungarian adventive flora, *Panicum dichotomiflorum*, has been discovered in Hungary recently. A short characterisation and its Hungarian distribution are presented.

Key words: adventive species, Hungarian flora, *Panicum dichotomiflorum*

### **INTRODUCTION**

In 2003 during the flora mapping of the country (Király and Horváth 2000, Bartha *et al.* 2002) a new element of the Hungarian adventive flora, *Panicum dichotomiflorum* Michaux (fall panicum) was found in some places in West, South and North Hungary.

The appearance of the species in Hungary is not surprising, as in 2001 Norbert Pfeiffer found *P. dichotomiflorum* in Slovenia (near Lendava) not far from Hungary. The fall panicum was introduced from North America, and by now (Dostál and Červenka 1992, Adler *et al.* 1994, Walter *et al.* 2002) it has spread to several Central European countries (e.g. Austria, Slovakia).

### **METHODS**

The authors used the *Panicum* key of Adler *et al.* (1994) and Clayton (2000), as well as the descriptions of Häfliger and Scholz (1980) for identification.

The recently known distribution pattern of the *P. dichotomiflorum* is shown in the grid map of Hungary (Fig. 1). The Hungarian flora mapping scheme is based on the Central European (CEU) Flora Mapping system (Niklfeld 1971, Király and Horváth 2000).

## DESCRIPTION

Annual. Stems 40–100(–200) cm tall, erect, ascending from a decumbent base and often branched from the lowest nodes (Fig. 2). Leaves 10–50 cm long, 6–20 mm wide, the midvein is conspicuous. The sheaths glabrous (!), often compressed, the lower ones dark-purple with anthocyan. The ligule 1–2(–3) mm long, membranous, fimbriate. The panicle 10–40 cm long, diffuse. The main and branch axes are scabrous. The solitary and pedicelled spikelets 2.4–3.2 mm long, 2 mm wide, narrow elliptical, deciduous. The lower glume obtuse to subacute, its length is one fourth of the spikelet (0.5–1 mm), while the upper glume equals the spikelet. The lower lemma is as long as the upper glume; the upper lemma is 1.8–2.2 mm long (Häfliger and Scholz 1980, Clayton 2000). Flowering period is June to October.

## RESULTS

### *Distribution, occurrence in Hungary*

Fall panicum is a Neotropical plant (e.g. Canada, USA, Mexico, Latin America, Columbia, Venezuela, Brazil, Paraguay, Argentina, Uruguay, Chile),

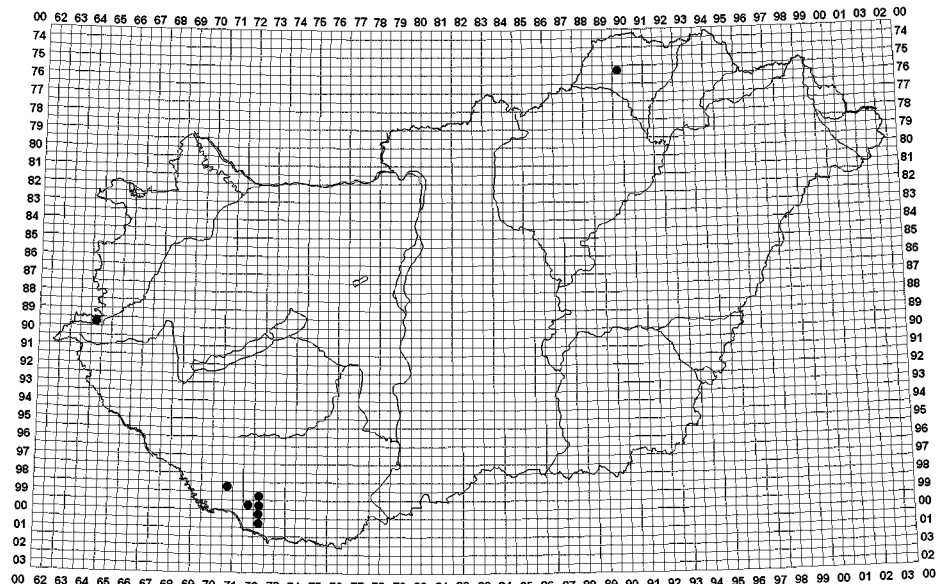


Fig. 1. Localities of *Panicum dichotomiflorum* on CEU grid map in Hungary



Fig. 2. *Panicum dichotomiflorum* (drawn by Emőke Oláh)

introduced to Europe (e.g. Spain, Italy, France, Austria, Slovenia, Croatia, Germany, Czech Republic, Slovakia, Poland, Switzerland, Turkey, Ukraine, Russia), Asia (e.g. Russia, Middle East, China, Japan, Korea) and some islands of the Pacific Ocean (e.g. New Zealand) (Häfliger and Scholz 1980, Dostál and Červenka 1992, Oberdorfer 1994, Lauber and Wagner 1996, Marhold and Hindák 1998, Aizpuru *et al.* 1999, Clayton 2000, Jogan 2001, Jäger and Werner 2002, Pyšek *et al.* 2002, Walter *et al.* 2002).

Considering Hungary, it was discovered by Norbert Pfeiffer in the eastern part of Belső-Somogy (Homokszentgyörgy, CEU: 9971/1; Csokonyavison-ta, CEU: 9971/1; Kálmánca, CEU: 9971/1), by Viktor Virók and Roland Farkas in the Putnok Hills (Szendrő, CEU: 7690/1), by Gergely Király in the Rába Valley (Rátót, CEU: 9064/2) and by János Csiky and Emőke Oláh in the Dráva Plain (Szörény, CEU: 0072/1; Kétújfalu, CEU: 0072/1; Szentegát, CEU: 0072/2; Endrőc, CEU: 0072/4; Marócsa, CEU: 0072/4; Drávafok, CEU: 0172/2) and in the South Zselic (Szigetvár, CEU: 9972/4). Further occurrences are expected in West and South Hungary.

#### *Habitat*

According to the recent occurrences in Hungary, *Panicum dichotomiflorum* is not rare in disturbed vegetation types, on waste grounds, next to puddles, along moist or wet (periodically flooded) road sides, at railway stations, in some plains and hills of Hungary.

The recent distribution area and the habitat preference of this plant species suggest that *P. dichotomiflorum* is a potential invader in Hungary.

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