Taxonomy of the Genus *Cnidium* Cusson ex Juss. (Umbelliferae Juss.) in Mongolia

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Abstract

The taxonomic position of Mongolian species belonging to the genus *Cnidium* Cusson ex Juss. is revised. Five species are included in this genus. A key for the identification of the five species and data on their distribution in Mongolia are given.

Key words: *Cnidium*, taxonomy, genus, species, herbarium

Introduction

The genus *Cnidium* Cusson ex Juss. belongs to the family Umbelliferae Juss. (Apiaceae Lindley), which is one of the biggest families in the Mongolian flora (Gubanov, 1996). The study on taxonomy of the sedge family of Mongolia is part of an ongoing project for creating a series of “Flora of Mongolia”. The genus *Cnidium* Cusson ex Juss. is one of the biggest genera of the family Umbelliferae Juss.

Only three species have been recorded in the genus *Cnidium* Cusson by Grubov (1982), but later, Vinogradova (1994) and Gubanov (1996) are listed five species in the Mongolian flora, namely: *C. davuricum*, *C. kamelinii*, *C. monnieri*, *C. multicaule* and *C. salinum*.

Materials and Methods

Herbaria materials from the Herbarium of the Institute of Botany, Mongolian Academy of Sciences (UBA), Herbarium of the National University of Mongolia (UBU), Herbarium of the Institute of Botany, Czech Academy of Sciences (PE) and Herbarium of the Botanical Institute, Russian Academy of Sciences (LE) are used for the present study with comparative literature data. Totally, 118 sheets of plant specimens are examined, which were collected by various scientists between 1920 and 2003.

Distribution of *Cnidium* species in Mongolia is given according to the plant-geographical regions as stated by Grubov (1982): Khubsugul (1), Khatgal (2), Khangai (3), Mongol-Daurian (4), Great Khingan (5), Khovd (6), Mongolian Altai (7), Middle Khalkh (8), Eastern Mongolia (9), Depression of Great Lakes (10), Valley of Lakes (11), East Gobi (12), Gobi Altai (13), Dzungarian Gobi (14), Trans-Altai Gobi (15) and Alasha Gobi (16). In the distribution section, after the name of each species, the numbers are given for the respective regions, where the species occur.

Results

We revealed that there are five species of *Cnidium* Cusson ex Juss. in the Mongolian flora, and the identification key to those species, their distribution and conspectus of each species are included given hereafter.

A key to identification of species of the genus *Cnidium*

1. Annuals. Lower part of stem is shortly roughly pubescent. Umbels with 15-20 unequal rays; bracts and bracteoles linear-subulate .......................... .......................... 2

   - Bracts absent or 1-2, deciduous; bracteoles linear; rays of umbel 6-15, almost unequal in length. Umbels in fruit up to 5 cm in diameter .......................... .......................... 2

   2. Bracts absent or 1-2, deciduous; bracteoles linear; rays of umbel 6-15, almost unequal in length. Umbels in fruit up to 5 cm in diameter .......................... .......................... 2

   - Bracts and bracteoles numerous, linear lanceolate or narrow ovate with broad membranous
Figure 1. Distribution of *Cnidium davuricum* in Mongolia

*Cnidium davuricum* (Jacq.) Turcz. ex Fischer et C.A. Meyer

Figure 2. Distribution of *Cnidium multicaule* in Mongolia

*Cnidium multicaule* (Turcz.) Ledeb.
Figure 3. Distribution of *Cnidium salinum* in Mongolia

Figure 4. Distribution of *Cnidium kamelinii* and *C. monnieri* in Mongolia
margin; rays of umbel 10-40, unequal in length. Umbels up to 10 cm in diameter ............. 3

3. Stems solitary, rounded with thin ribs, up to 150 cm tall. Radical leaves up to 25 cm long and 12 cm wide. Rays of umbel in fruit not thickened. Fruits 3.5-5 mm long and 3 mm wide, with equal ribs .......... C. davuricum (Jacq.) Turcz. ex Fischer et C.A. Meyer

- Stems numerous, with strongly prominent ribs, up to 60 cm tall. Radical leaves (8) 10-20 cm long and 3-5 cm wide. Rays of umbel 5-10 cm long and in fruit thickened. Fruit 6 mm long and 3 mm wide, midribs narrow, lateral ribs widely winged ............... 4


Distribution: 2, 3, 4, 8, 9, 10, 11, Dauria of Lake Baikal region (Fig. 3).

Typus: Sankt-Peterburg (Herbarium of the Komarov Botanical Institute of the Russian Academy of Sciences).


Distribution: 4, 9 (Fig. 4).

Typus: London (The Linnaean Society of London).


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Typus: London (The Linnaean Society of London).


Distribution: 7 (Fig. 4). Central Asian endemic.

Typus: Sankt-Peterburg (Herbarium of the Komarov Botanical Institute of the Russian Academy of Sciences).

References


Received: 23 April 2005
Accepted: 14 November 2006