

**50th Anniversary of Botany Department  
National University of Mongolia**



**Proceedings of International Conference  
PLANT BIODIVERSITY AND ECOSYSTEM  
SERVICES IN CONTINENTAL ASIA**

**ТӨВ АЗИЙН УРГАМЛЫН ОЛОН ЯНЗ БАЙДАЛ,  
ЭКОСИСТЕМИЙН ҮЙЛЧИЛГЭЭ**

**Олон улсын эрдэм шинжилгээний хурлын эмхэтгэл**

BOTANY DEPARTMENT  
SCHOOL OF BIOLOGY AND BIOTECHNOLOGY  
NATIONAL UNIVERSITY OF MONGOLIA



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**Plant Biodiversity and Ecosystem Services in Continental**  
**Asia**

June 26-28, 2013

Ulaanbaatar, Mongolia

## *Allium carolinianum* DC. - a new species in Mongolia

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45 species were recognized in the last taxonomic revision of the genus *Allium* in Mongolia (Friesen, 1995) which increased up to 49 (including *Caloscordum neriniflorum*) in I. A. Gubanov's conspectus (1996).

An *Allium* plant was collected in Baitag Bogd Mountain in the Dzungarian Gobi during the botanical expedition of the WaterCope, a Mongolian-Sino-German Research & Development project in summer 2012. This plant was collected in 2010 and determined as *Allium obliquum* (Darikhand, 2011). Appropriate determination of the collection revealed that it was *Allium carolinianum* DC. a new species for the Flora of Mongolia. According to the new classification of the genus *Allium* (Friesen et al. 2006) this species belongs to the section *Falcatifolia* N. Friesen of the subgenus *Polyprason* Radić.

*Allium carolinianum* DC. has been known from one population, which is relatively small with about 400 plants growing in approximately 0.5 acres of land on the western slope of Baitag-Bogd Mountain. Below we present a comprehensive description of the species *Allium carolinianum* DC. 1804. In Redoute, *Liliac.* 2: t. 101; Nasir 1975. Flora of West Pakistan. Alliaceae, No83: 9; Wendelbo 1971. Flora Iranica 76.1:14; Egorova, 1977 in Plantae Asia Centralis. 7: 48; Xu and Kamelin. 2000. Fl. of China. 24. 188. - *Allium polyphyllum* Kar. & Kir. *Bull. Soc. Imp. Naturalistes Moscou* 15: 509 1842; Vvedensky, 1935. Flora URSSR, 4: 176; Vvedensky 1971. Conspectus Florae Asiae Mediae. 3: 63. - *Allium platystylum* Regel 1887. *Trudy Imp. S.-Peterburgsk. Bot. Sada* 10: 328; Egorova 1977. Plantae Asia Centralis. 7: 54. - *Allium platyspathum* var. *falcatum* Regel 1875. *Trudy Imp. S.-Peterburgsk. Bot. Sada* 3(2): 135.- *Allium thomsonii* Baker 1874. *J. Bot.* 12: 294; Hooker 1894. Flora of British India, 6:340.

**Morphology.** Bulb cylindrical to ovoid, tunic coriaceous, dull brown, inner ones membranous. Scapes 15-50 cm tall, base covered with leaf bases. Leaves 5-7, broadly linear to lanceolate, falcate, apex obtuse. Umbel many flowered, dense, 2-3 cm in diameter. Perianth pink to red, lanceolate, 6-7 mm long. Filaments longer than perianth segments, entire, connate at the base. Style exerted, stigma capitate.

**Distribution in Mongolia:** Western Mongolia, Khovd aimak, Bulgan soum, Baitag Bogd Mountain, at the border between Mongolia and China, N 45°17'38"; E 90°48'24", altitude 2550 m.

**Ecology:** Gravely and stony slopes.

**General Distribution:** Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, China (Xinjiang, Nu W Xizang), Afghanistan, Pakistan, India, West Nepal.

**Herbarium specimen:** Ten collections made in this area are preserved in the Herbarium of Botany Department, National University of Mongolia (UBU) and University of Osnabrueck, Germany (OSBU 22267).

**Keywords:** new *Allium* species, Western Mongolia, Dzungarian Gobi, Baitag-Bogd Mountain