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Allium marmoratum (Amaryllidaceae), a new species of section *Falcatifolia* from Chimgan Massif, Eastern Uzbekistan

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The former Soviet republics of Middle Asia are an important area of *Allium* Linnaeus (1753: 294) diversity. The latest checklist by Khassanov (2008) recorded 244 species and subspecies. At least 18 new species were described from Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan afterwards (Lazkov 2008, Fritsch 2009, Fritsch & Friesen 2009, Khassanov & Tojibaev 2009, 2010, Khassanov *et al.* 2009, 2011, 2013, Sennikov & Lazkov 2013, Tojibaev *et al.* 2014 , Seregin et al. 2015). Due to the high number of extremely rare local endemics, *Allium* species of this region are still underexplored. For instance, some collections in many herbaria are still remaining unnamed or bear provisional identifications.

The Leibniz-Institut für Pflanzengenetik und Kulturpflanzenforschung (IPK) in Gatersleben, Germany is one of the leading centres of *Allium* studies. According to IPNI, ca. 50 species were described by IPK staff members in the last two decades. The Gatersleben herbarium holds voucher specimens of 6000+ accessions of huge living *Allium* collection from Asia and Europe, including many types of newly described species.

During my short visit to the herbarium of IPK (GAT) I studied some collections of *Allium* species in line with a revision of *A.* sect. *Oreiprason* Hermann (1939: 57) from the subgenus *Polyprason* Radić (1990: 250). Several different species of various affinities were filed under the name *A. talassicum* Regel (1878: 628) in GAT. Three of them I determined as *A. petraeum* Karelin & Kirilow (1842: 511), a species from *A.* sect. *Oreiprason* s.s. (Seregin *et al.* 2015, Seregin & Friesen 2015). Two specimens fit well the description of *A. talassicum* by Vvedensky (1935, 1941), but not the original protologue by Regel (1878).

Two other specimens are representing a species new to science with distinct red-and-white patterns on leaf sheaths. The description below is based on herbarium specimens of plants cultivated in Gatersleben, which are probably more robust under the favourable conditions of cultivation than in nature.

Description of the new species

Allium marmoratum Seregin *sp. nov.* (Fig. 1)

It is distinct from all related species for the red-and-white pattern of leaf sheaths. It differs from *A. talassicum* sensu Vvedensky for the yellow dehisced anthers (not dark-violet); from *A. clausum* for the attenuate inner tepals (not rounded), and the presence of distinct veins on tepals; from *A. cisferganense* for the canaliculate leaves (not flat), the shorter filaments and spathe, and tepal colour.

Type:—GERMANY, cultivated in Gatersleben: TAX 5884, 6 Jul 2005, *anonymous s.n.* (Origin: UZBEKISTAN, northern slope of Chimgan Massif, the Aksay River [ca. 80 to ENE from Tashkent], perennials and shrubs community on the creek terrace, rarely on drier sites, May 2001, *R. Fritsch & M. Hoffmann 1758*) (holotype GAT 20127!).

Stems 30–50 cm high, 1.0–1.5 mm in diameter in upper part, rounded. Bulb-like base of the stem (false bulb, or "bulb") 2.0–2.5 cm in diameter, 7–10 cm long, almost cylindrical; outermost tunics brown, coriaceous. Leaves 3–4, canaliculate, hollow, up to 3 mm wide (usually less), sheathing the lower 2/5 to 1/2 part of the stem; leaf sheaths with a distinct marble-like pattern, which is a combination of red and white patches. Top leaves dry in anthesis. Spathe bivalved, persistent; valves unequal, the longer 13–23 mm long with a filiform beak, equaling or slightly longer than umbel; the shorter 5–7 mm long with a wanted beak, considerably shorter than umbel. Umbel lax, globose in anthesis,

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Phylogenetic position:—Results of molecular analysis recently published by Seregin & Friesen (2015) suggest that *A. marmoratum* is actually a member of *A.* sect. *Falcatifolia* N.Friesen in Friesen *et al.* (2006: 390). This section was introduced for *A. carolinianum* DC. ex Redouté (1804: t. 101) and *A. platyspathum* Schrenk in Fischer & Meyer (1841: 7), both showing large, flat, falcate leaves. Later on, Fritsch & Friesen (2009) transferred to the section *Falcatifolia* tall species such as *A. hymenorrhizum* and *A. kaschianum* Regel (1887: 338). Species like *A. filifolium*, *A. kokanicum* Regel (1875: 104), *A. caricoides* Regel (1879: 532), *A. alexandrae* Vvedensky (1924: 95), and *A. marmoratum* are similar to species of the section *Oreiprason* in their gross-morphology, but show similar ITS and plastid DNA fragments with abovementioned species from the section *Falcatifolia*. Those plants known as *A. talassicum* sensu Vved. (including *A. marmoratum*) are forming an early diverging clade within the section *Falcatifolia* (Seregin & Friesen 2015).

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