Validation of two varieties of *Oxytropis tragacanthoides* (Fabaceae) from Southern Siberia

Denis A. Krivenko1,2,3*, Ivan V. Tatanov4 & Irina V. Belyaeva5,6

**ABSTRACT**

Two names of varieties, *Oxytropis tragacanthoides* Fisch. ex DC. var. *parviflora* Polozhij ex Krivenko, var. *nova*, and *Oxytropis tragacanthoides* var. *glabra* Peschkova ex Krivenko, var. *nova*, are validated here according to the International Code of Nomenclature for Algae, Fungi, and Plants (Shenzhen Code). For each new variety provided description, illustration of holotype, distribution, and differences from *Oxytropis tragacanthoides* var. *tragacanthoides*.

**Keywords**: *Oxytropis tragacanthoides*, Fabaceae, new varieties, nomenclature, taxonomy, Russia, Mongolia, Southern Siberia

**РЕЗЮМЕ**

Кривенко Д.А., Татанов И.В., Беляева И.В. Валидизация двух разновидностей *Oxytropis tragacanthoides* (Fabaceae) из Южной Сибири. Действительно обнародованы две разновидности *Oxytropis tragacanthoides* Fisch. ex DC.; var. *parviflora* Polozhij ex Krivenko, var. *nova* и var. *glabra* Peschkova ex Krivenko, var. *nova*., в соответствии с Международным кодексом номенклатуры водорослей, грибов и растений (Шэнаньский кодекс). Для каждой новой разновидности приводятся описание, иллюстрация голотипа, распространение и отличие от *Oxytropis tragacanthoides* var. *tragacanthoides*.

**Ключевые слова**: *Oxytropis tragacanthoides*, Fabaceae, новые разновидности, номенклатура, таксономия, Россия, Монголия, Южная Сибирь

The genus *Oxytropis* DC. was established in 1802 (Fabaceae, seu Leguminosae; Faboideae ≡ Papilionoideae; Galegeae; Astragalinae) as one of the largest genera in Fabaceae. The genus includes about 400 species (Malyshev 2008), more than 370 of which are distributed mainly in Northern Eurasia (Yakovlev et al. 1996). The centre of diversity of *Oxytropis* is Central Asia where 175 species occur which is more than a half of all known species of the genus. This genus is extremely diverse and rich in endemics: 78 species of the total number are endemic to Central Asia (Vassilezenko 1965, Grubov 2003).

In Southern Siberia, *Oxytropis tragacanthoides* Fisch. ex DC. is a representative of the Central Asian section *Hystrix* Bunge. Here this species has the status of a tertiary relic, the main part of whose range is in Central Asia (Peschkova 2001). *Oxytropis tragacanthoides* is a very polymorphic species. Three varieties of the species, *O. tragacanthoides* var. *parviflora* Polozhij (1965), *O. tragacanthoides* var. *glabra* Peschkova (1972), and *O. tragacanthoides* var. *curvata* Revuschkin (1990), have been described from the territory of Southern Siberia. However, the first two names were never validly published according to the International Code of Nomenclature for Algae, Fungi, and Plants (Shenzhen Code) (ICN) (Turland et al. 2018). Thus, we validate the names *O. tragacanthoides* var. *parviflora* and *O. tragacanthoides* var. *glabra* here, providing descriptions, diagnoses, illustrations of holotypes and distributions.

**Taxonomic treatment**


Polozhij (1965), when the variety was published, did not indicate the type and did not quote the single specimen which contrary to Art. 40.1 of the ICN (Turland et al. 2018) means the name was not validly published. Gureyeva & Balashova (2011) were not successful in validating this name by choosing a lectotype, instead of citing the holotype, and using the words “holotype” or “type” which is contrary to Art. 40.6 and to Art. 9.10 Note 6 of the ICN (Turland et al. 2018).

Shrublet, forming hemispherical cushion, branching from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are not brittle. Peduncles 2–5 cm with inflorescences (racemes 2–5-flowered) shorter than leaves. Calyces cylindric, 1.1–1.5 cm. Corollas purple or violet-
blue; standards (1.5)1.7–1.9 cm; wings 1.6–1.7 cm; keels are almost equal to wings, beaks 1–1.5 mm. Legumes sessile, ovoid to subspherical, inflated, dense, and pilose.

**Holotype:** “Tuvin’skaya botanical expedition 1949. The vicinity of Erzin settlement, rocky steppe, 15 VII 1949, K. Sobolevskaya, S. Savinykh” (TK: TK000367!). Figure 1.

**Affinity.** Differs from *O. tragacanthoides* var. *tragacanthoides* in corolla features. In *O. tragacanthoides* var. *parviflora*: standards (1.5)1.7–1.9 cm, wings 1.6–1.7 cm, beaks 1–1.5 mm; in *O. tragacanthoides* var. *tragacanthoides*: standards 1.8–2.5 cm, wings 1.7–2.3 cm, beaks 2–2.5 mm.

**Distribution.** Mountain steppe in the Russian Republics of Tuva and Khakassia, as well as in Northern Mongolia.


Peschkova (1972), when publishing this variety, did not indicate the type and did not quote a single specimen, contrary to Art. 40.1 of the ICN (Turland et al. 2018) and thus the name was not validly published.

Shrublet, forming hemispherical cushion, branching from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex. Dry leaf rachises modified as thorns. The thorns are brittle. Peduncles with inflorescences from a ligneous caudex.

**Holotype:** “Baikal, Olkhon Island, Khoboi Cape, rocks, 4 IX 1966, G. Peschkova” (NSK: NSK0008415!; isotype: NSK0008414!). Figure 2.

**Affinity.** Differs from *O. tragacanthoides* var. *tragacanthoides* in thorns, peduncules length, and pubescence of legumes. In *O. tragacanthoides* var. *glabra*: brittle thorns, peduncules equal or longer than leaves, balancing legumes; in *O. tragacanthoides* var. *tragacanthoides*: not brittle thorns, peduncules shorter than leaves, not balancing legumes.

**Distribution.** An endemic variety on rocky slopes of the northern tip of Olkhon Island, Baikal Lake, (Irkutsk Region, Russia).

The abbreviated authors names and places of publication are given according to the International Plant Names Index (IPNI 2019), and herbarium abbreviations are given in accordance with to the Index Herbariorum (Thiers 2019).

Digital copies of the holotype and isotype of *Oxytropis tragacanthoides* var. *glabra* placed in the open access in the Digital herbarium of CSBG SB RAS (2019).

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**LITERATURE CITED**


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*Figure 1* Holotype of *Oxytropis tragacanthoides* var. *parviflora* (TK000367)
Figure 2 Holotype of *Oxytropis tragacanthoides var. glabra* (NSK0008415)