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New species of *Corydalis* DC. (Fumariaceae) from Tajikistan

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Summary. A new species, *Corydalis yazgulemica* Mikhailova et Sochivko (sect. *Strictae* (Fedde) Wendelbo), is described from Tajikistan, Western Pamirs, Yazgulem range. The species differs from *C. rarissima* Mikhailova by linear (not elliptic) capsules and shorter pedicels, from *C. bucharica* Popov – by smaller plant size, reticulate seeds and rocky habitat.

Новый вид рода *Corydalis* DC. (Fumariaceae) из Таджикистана

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Ключевые слова: Западный Памир, секция *Strictae*, хохлатки.

Аннотация. Описан новый для науки вид *Corydalis yazgulemica* Mikhailova et Sochivko из секции *Strictae* (Fedde) Wendelbo. Материал собран в Таджикистане, на Язгулемском хребте Западного Памира. От *C. rarissima* Mikhailova новый вид отличается линейными (а не эллиптическими) коробочками и более короткими цветоножками, от *C. bucharica* Роров – меньшим размером растения, ячеистой поверхностью семян, скальным местообитанием.

For more than 17 years we have been studying trophic links between *Corydalis* DC. and butterflies of the genus *Parnassius* Latreille (Papilionidae) in Middle Asia. Considerable herbarium material was collected from hard-to-reach localities on non-tuberous species of *Corydalis* – host plants of butterflies caterpillars. The territory of Tajikistan, especially Gornyi Badakhshan, was in our main focus which allowed to clarify the composition and distribution of the genus *Corydalis* in the Pamirs

(Mikhailova, Sochivko, 2011; Sochivko, Mikhailova, 2014, 2015).

The xerophilic section *Strictae* (Fedde) Wendelbo is the most species-rich among non-tuberous *Corydalis*. 12 species are known from Tajikistan, 7 of them being endemic (Mikhailova, 2021). New plant from section *Strictae* was found in Yazgulem range, Western Pamirs, in the summer of 2021. It differs from all known species in the totality of characters and is described here as a new taxon for science.

Corydalis yazgulemica Mikhailova et Sochivko, **sp. nova.**

Perennial herb 6–15 cm, with caudex and thick root. Caudex densely covered with persistent bases of last year's stems and petioles. Grows as cushions

on rocks. Stems thinly sulcate, aphyllous. Leaves only basal with filiform petioles, pinnatisect with lobed segments, along with petiole 7–18 × 1.5–3 cm. Inflorescence few-flowered raceme, not exceeding or just exceeding the leaves. Bracts herbaceous, narrowly



Fig. 1. Habitat (1) and habit (2, 3) of *Corydalis yazgulemica*.

triangular, ca. $2-3 \times 0.7-1$ mm. Pedicels 6–12(17) mm. Sepals scarious, irregularly triangular, $2-3 \times 0.7-1$ mm, margin slightly dentate. Corolla yellow with green spots on the tops of the outer petals,

15–20 mm long, at the base 2.5 mm wide. Spur 3–5 mm. Nectary does not reach the spur end by 2 mm. Outer petals without crest and with a small tip 0.5 mm. Capsules linear, $15 \times 2-2.5$ mm, style 5–6 mm

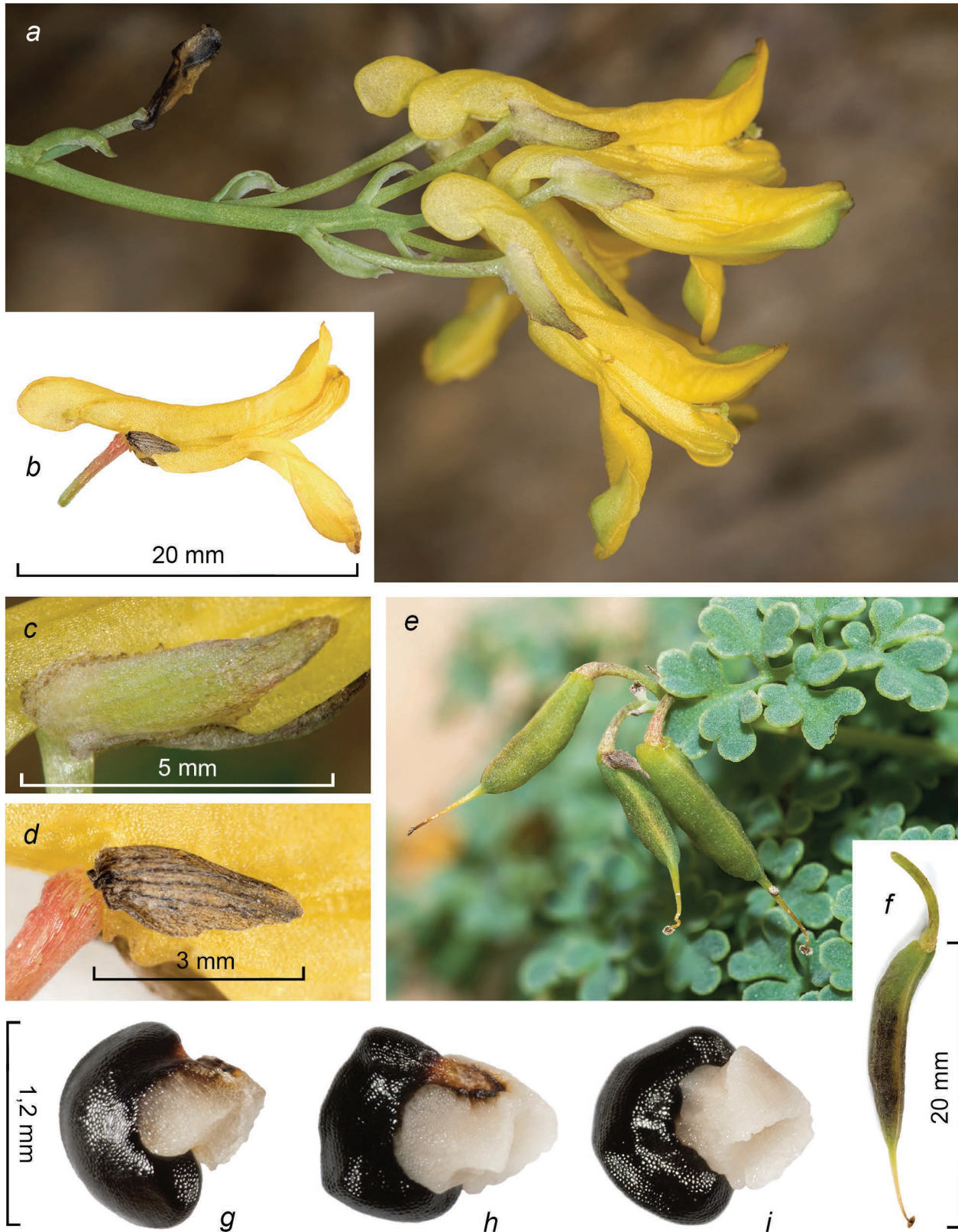


Fig. 2. *Corydalis yazgulemica*: a – inflorescence; b – flower; c – young sepal; d – aging sepal; e, f – fruits; g, h, i – seeds.



Fig. 3. Holotype of *Corydalis yazgulemica* (LE 01150170).

long. Seeds in one row, black, shiny reticulate, 1–1.2 mm in diam., with outgrowth, with a small caruncle (Figs. 1, 2).

Holotype (Fig. 3): “Tajikistan, GBAO, Rushan distr., Yazgulem Range, above Darjomch, in the shadowy recesses of the steep conglomerate wall, northern exposure, 3500 m a. s. l., 38°7'36.26"N, 71°54'52.10"E, 23 VII 2021, A. V. Sochivko” (LE: LE 01150170, iso – LE 01150171).

Paratypes: “Pamir, Badakhshan, [Yazgulem range], Bartang river, right branch, near Sipondzh, on rocks, 3300 m a. s. l., 28 VII 1964, № 16088, S. S. Ikonnikov” (LE 01150176, LE 01150177); “Tajikistan, GBAO, Rushan distr., Yazgulem range, vicinities of Siponch, Vodzh river gorge (right tributary of Bartang), on rocks along water stream, 3000 m a. s. l., 38°4'54.55"N, 71°51'31.72"E, 26 VII 2021, A. V. Sochivko” (LE 01150172 – LE 01150175); “Tajikistan, GBAO, Rushan distr., Yazgulem range, above Darjomch, in the shadowy recesses of the steep conglomerate wall, northern exposure, 3500

m a. s. l., 38°7'36.26"N, 71°54'52.10"E, 29 VII 2021, A. V. Sochivko” (LE 01150178); “vicinities of Siponch, Vodzh river gorge (right tributary of Bartang), on rocks along water stream, 3000 m a. s. l., 38°4'53.09"N, 71°51'36.58"E. 07 VIII 2021, A. V. Sochivko” (LE 01150179). Peloric flowers are present on this herbarium specimen.

Distribution in Tajikistan: Western Pamirs. Endemic.

Affinities. The new species differs from the related *C. rarissima* Mikhailova by shorter (6–12(17) vs. 15–35 mm long) pedicels, linear (vs. elliptical) capsules 15 × 2–2.5 (vs. 7–8 × 3) mm, and shorter (5–6 vs. 8–9 mm long) style. From *C. bucharica* Popov, the new species differs by smaller (6–15 vs. 30–50 cm) plant size, reticulate (vs. smooth) seeds and rocky habitat (Table).

Note. No traces of damage to plants by caterpillars of *Parnassius* butterflies were found.

Table

Morphological features of *Corydalis yazgulemica*, *C. rarissima*, and *C. bucharica*

Features	<i>C. yazgulemica</i>	<i>C. rarissima</i>	<i>C. bucharica</i>
Size	6–15 cm	7–15 cm	30–50 cm
Pedicels	6–12(17) mm	15–35 mm	3–5 mm
Spur	3–5 mm	4–5 mm	7–10 mm
Capsules	linear, 15 × 2–2.5 mm	elliptical, 7–8 × 3 mm	linear, 13–17 × 2.5–3 mm
Style	5–6 mm long	8–9 mm long	4–6 mm long

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