

New taxa of *Corydalis* (Papaveraceae, Fumarioideae) from Anjaw District, NE India

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Corydalis meyori Lidén, R. Mili & B. Saikia (sect. *Trachycarpae*) and *C. pterygo-petala* subsp. *macrocarpa* Lidén, R. Mili & B. Saikia (sect. *Davidianae*) are described as new to science. Both were collected close to Myanmar (Burma) in East Arunachal Pradesh, an area whose flora is almost unknown.

Arunachal Pradesh, located at the extreme north-east of India, is known for its biological diversity and is a botanical paradise with high endemism. Its undulating topography has provided ample opportunities for origination and survival of a very rich flora, which — due to difficulty of access — is still mostly unknown, especially for the alpine altitudes. The novelties described here were collected during a short trip to the mountain area east of Dong in Anjaw District in the easternmost Arunachal Pradesh at the end of August 2012. Regrettably, we could explore the alpine zone only very marginally due to lack of time, and we did not manage to reach any scree slopes, which are good hunting grounds for *Corydalis*. It is a safe prediction that more new species will come to light in Anjaw District with increased botanical investigation of this botanically virtually unknown province. This paper supplements the recent summary of Fumarioideae of NE India (Pathak *et al.* 2013) and raises the number of *Corydalis* species known for Arunachal to 26.

Corydalis meyori Lidén, R. Mili & B. Saikia, *sp. nova* (Fig. 1)

TYPE: India. Arunachal Pradesh, Anjaw district, E of Dong, 28°09' N, 97°10' E, 3870 m, among dwarf shrubs on W-facing alpine slope, 28 Aug. 2012 M. Lidén, B. Saikia & R. Mili 4 (holotype CAL).

ETYMOLOGY: Named for the Meyor tribe of Anjaw.

[Sect. *Trachycarpae*] Perennial glabrous glaucous herb. Storage roots fusiform, 5–9 × 2(–3) mm, with distinct, unbranched narrow stalks 3–16 mm. Apical bulb-like rhizome bud small. Radical leaves (on non-flowering individuals) long-stalked, petiole 10–20 cm; lamina imparipinnate with five leaflets; leaflets lanceolate with distinct midvein below, 10–20 × 2–5 mm. Stem (only one seen) ca 15 cm, thin, with two alternate leaves. Cauline leaves similar to the radical leaves but smaller, shortly stalked to subsessile; leaflets 8–11 × 1–2 mm. Raceme 2 cm, four-flowered; peduncle 3 cm. Bracts 3–4 mm, narrowly lanceolate, acute, entire. Pedicels thin, 4–6 mm. Flowers slightly nodding

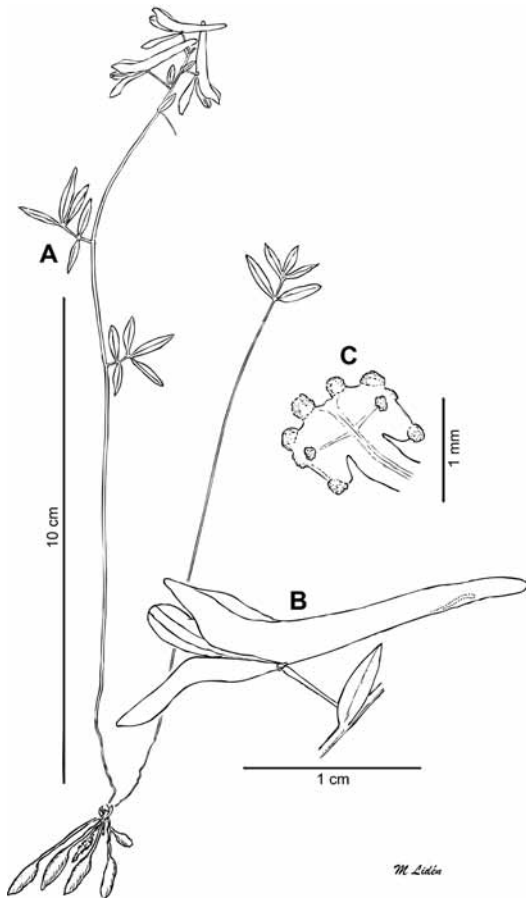


Fig. 1. *Corydalis meyori* (from the holotype). — **A:** Entire plant. — **B:** Flower. — **C:** Stigma

from thin straight patent pedicels, yellow with a slightly darker hue towards keels of outer petals and dark markings on dorsal crests of inner petals. Upper petal with a short entire crest, tapering to both ends, not reaching apex and not decurrent onto spur. Spur straight or slightly sigmoidally curved, slightly tapering towards apex, 13 mm long with nectary reaching about 10 mm into spur. Inner petals 7–8 mm. Lower petal narrow, straight, 8–9 mm, without crest. Fruit unknown. Ovary small with ten ovules. Style 4 mm. Stigma squarish with four apical papillae, two submarginal geminate lateral papillae and two geminate papillae set on distinct basal lobes.

The most similar and probably most closely related known species is *Corydalis mayae*, known from SE Tibet, NW Yunnan and N Myanmar. This is distinguished from *C. meyori* by a more robust

habit, much longer storage roots with thicker and less distinct stalks, larger bracts, longer pedicels, shorter spur and by a nectary reaching only half-ways into the spur of the upper petal.

Corydalis pterygopetala Handel-Mazzetti

Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl. 62: 222. 1925.

[Sect. *Davidianae*] The species is known from NW Yunnan, SE Tibet and N Myanmar. This is the first record from India, from the mountains West of Dong where it is apparently not rare from 3100 to 3700 m. As this population differs consistently in several characters, we find that it deserves recognition as a new subspecies, with other variants of this polymorphic species subsumed under subsp. *pterygopetala* (Zhang *et al.* 2008).

Corydalis pterygopetala subsp. *macrocarpa* Lidén, R. Mili & B. Saikia, *subsp. nova* (Fig. 2)

TYPE: India. Arunachal Pradesh, Anjaw, E of Dong, 28°09'N, 97°09'E, 3300 m, forest margin, close to running water, 27 Aug. 2012 *M. Lidén, B. Saikia & R. Mili* 24 (holotype CAL).

Differs from subsp. *pterygopetala* by simple racemes, lack of accessory branches, small flowers and longer fruits (*see* Table 1).

The closely similar *C. auricilla* has recently been reported from India (Pathak *et al.* 2013). It differs from *C. pterygopetala* in the more divided leaves with narrowly obovate leaflobes, flowers with a broader and comparatively shorter spur, narrowly obovoid fruits with seeds \pm in two rows, and some minor details of stigma.

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Fig. 2. *Corydalis pterygotata* subsp. *macrocarpa* (from the holotype).— **A:** Flowering plant and fruit.— **B:** Flower.— **C:** Stigma.

Table 1. Morphological comparison of *Corydalis pterygotata* subsp. *pterygotata* and *C. pterygotata* subsp. *macrocarpa*.

Characters	subsp. <i>macrocarpa</i>	subsp. <i>pterygotata</i>
Racemes	simple, not branched or clustered	usually clustered or branched
Accessory branches	lacking	usually present
Flowers	14–16 mm	16–21 (–28) mm
Nectary	lacking	present or lacking
Fruit	20–23 mm	12–17 mm

References

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