The Identity of *Veratrum chiengdaoense* (Melanthiaceae) and A New Record of *V. mengtzeanum* from Thailand

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Abstract. *Veratrum chiengdaoense* K.Larsen from northern Thailand is treated as a synonym of *V. mengtzeanum* O.Loes. from Yunnan, China, since there is no significant difference between them. *Veratrum mengtzeanum* is recorded for the first time from Thailand. This species seems closely allied to *V. virginicum* (L.) Aiton and *V. latifolium* (Desr.) Zomlefer indigenous to eastern North America, as they share clawed tepals with a pair of prominent nectaries.

Key words: distribution, taxonomy, Thailand, *Veratrum chiengdaoense*, *Veratrum mengtzeanum*

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*Veratrum chiengdaoense* was described by Larsen (1961) from Doi Chiengdao, northern Thailand, based on a specimen collected by Put (no. 388, K). I had an opportunity to examine another sheet of 'Put no. 388' preserved in BM (Fig. 1). This specimen coincides well with the original description and the figure of the holotype of *V. chiengdaoense* given by Larsen (1961), so it can be regarded as an isotype. The isotype, like the holotype (cf. Fig. 1 in Larsen, 1961), is in a late flowering stage or early fruiting stage (Fig. 1). In the isotype, the stem is trigonous, the leaves are narrowly oblong or narrowly lanceolate with an acute apex, up to 2.3 cm wide, and glabrous or nearly so on both surfaces, the inflorescence is a relatively lax panicle with a few lateral racemes, the flowers are staminate or hermaphrodite (*i.e.* the plant is andromonoecious) and comparatively large, and the tepals (Fig. 3A) are elliptic-spatulate or ovate-spatulate, with two collateral prominent nectaries in the lower part, and 8-12 mm long and 2.7-5 mm wide. The tepals of the isotype are acute or subacute at the apex (Fig. 3A), and those of the holotype figured in Larsen (1961) are (sub)acute to rounded (some are even slightly retuse). All these features coincide well with *V. mengtzeanum* (Figs. 2, 3B) described by Loesener (1926, 1928) from Yunnan, China. The tepals of *V. mengtzeanum* are described as slightly acute or obtuse by Loesener (1928), and in the three specimens I examined (see below) they are also (slightly) acute to rounded (rarely slightly retuse) at the apex (Fig. 3B). There is no significant difference in the tepals or in other characters between *V. chiengdaoense* and *V. mengtzeanum*. Accordingly, *V. chiengdaoense* is treated here as conspecific with *V. mengtzeanum*.

*Veratrum mengtzeanum* has clawed tepals with a pair of prominent nectaries, as noted above. It is noteworthy that similar tepals occur in at least two species indigenous to eastern North America, *V. virginicum* (L.) Aiton (Melanthium
virginicum L.) and V. latifolium (Desr.) Zomlefer (Melanthium latifolium Desr.) (Britton and Brown, 1913; Fernald, 1950; Kupchan et al., 1961; Zomlefer, 1997). Because of this similarity in tepals, V. mengtzeanum and those two species seem closely related. Kupchan et al. (1961) also regarded them as close taxonomically.

FIG. 2. Syntype of Veratrum mengteanum (Yunnan, Henry 9979, E).


Herbs. Stem upright, more or less trigonous, to 94.5 cm tall including inflorescence, villose above, basally slightly incrassate and covered with old membranaceous sheaths (tunics); sheaths brownish, somewhat fibrous in upper part. Leaves basal, cauline, narrowly oblong to narrowly lanceolate, to 2.3 cm wide, becoming smaller upwards, glabrous or nearly so on both surfaces (abaxial surface and basal margin of cauline leaves occasionally slightly villose). Inflorescence a relatively lax panicle with few lateral racemes, to ca. 25 cm long; rachises villose. Bracts ovate to lanceolate, acute, foliaceous, villose abaxially and on margin, to 5.5 cm long. Pedicels 0.3-2.5 cm long, as long as or longer than subtending bracts, villose. Flowers staminate or hermaphrodite, 1.5-2 cm across. Tepals 6, in 2-whorls of 3, spreading, elliptic-spatulate, obovate-spatulate, or ovate-spatulate, acute to rounded or occasionally slightly retuse at apex, clawed at base, with two collateral nearly obcordate prominent nectaries below the middle, 7-12 mm long, 2.7-5 mm wide, villose abaxially below, especially outer tepals, persistent. Stamens 6; anthers reniform or semicircular, unilocular, transversely dehiscent, peltate when fully dihiscient, deciduous; pollen yellow; filaments free, filiform, slightly broadened toward base, arising from base of claw of tepal, 4-6 mm long, persistent. Pistil 1; style 3, acute, reflexed or almost horizontally divergent, 1.5-2.5 mm long; ovary trigonous, glabrous, 3-3.8 mm long at anthesis.
Distribution: Northern Thailand and south central China (Yunnan). Also recorded from Guizhou, China (Tsi 1980, Tu 1990).

Additional specimen examined: China. E. Yunnan, Lo Shieuh Mt., summit of a mountain, herbaceous, flower light-yellow, blossom in October, McLaren's Collectors no. V-71 (E).

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References


田中教之：Veratrum chiengdaoense (シュロソウ科) の分類学的再検討およびタイにおける V. mentzeanum の新たな記録

タイ北部から記載された Veratrum chiengdaoense K.Larsen は、それ以前に中国雲南省から記載された V. mentzeanum O.Loes. と形態的にとくに顕著な差異がないことが分かった。それ故、前者を後者のシノニムとして扱った。タイから V. mentzeanum が記載されるのは初めてである。本種は中国貴州省にも分布していることが報告されている。本種の花被片の基部はやや絹状で、下半部には顕著な一面の蜜腺があるが、これと同様の特徴は北米東部に分布する V. virginicum や V. latifolium 的花被片にもあることが知られており、これらの種との間に密接な類縁関係があることが示唆される。

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