A NEW GENUS OF UMBELLIFERAE (TORDYLIINAE) FROM CAUCASIA

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ABSTRACT. A new monotypic genus, *Mandenovia* is described and its relationships with *Tordylium* L. and *Trigonosciadium* Boiss. are considered.

While studying the genus *Tordylium* L. it was found that one species, *T. komarovii* Manden., appeared not to agree with the characteristics described for the genus. A closer study of this taxon, therefore, was considered necessary. Herbarium specimens, including type material, were studied as well as live plants grown in the botanical garden from seeds that had been collected by Š. Omarov in the native habitat in Dagestan.

Tordylium komarovii, described by Mandenova in 1940, was based on a specimen collected in the mountains of Dagestan by A. G. Doluhanov in 1937. Another specimen, collected as early as 1915 by A. A. Grossheim in the same region ("raion"), was also identified at that same time by Mandenova as the same taxon.

Even though this taxon was described as a species of *Tordylium*, Mandenova (1940, p. 42) comments, in connection with the description, about the uniqueness of this species in comparison with the others of the genus. Later she suggests (Mandenova 1959, p. 33) that, in a future monographic study of the genus, this species be put in a section of its own. Its uniqueness apparently was the reason for Tamamschian (1967) excluding it from *Tordylium* and transfering it to the genus *Trigonosciadium*.

Tordylium komarovii is an endemic in the Greater Caucasus and has been collected at the altitude of 1200–1550 m in Hevsurethia, Georgia and in Dagestan (Mandenova 1959). It is well enough separated, not only from *Tordylium*, but also from *Trigonosciadium* as well as from the other genera of *Tordyliinae*, to be ranked as a representative of an as yet undescribed and monotypic genus, which I wish to name *Mandenovia* in honour of Dr Ida Mandenova of Tbilisi, an eminent student of the Caucasian Umbelliferae.

The three genera can be distinguished by the following characters:

	Tordylium	*Mandenovia*	*Trigonosciadium*
habit	annual	biennial	biennial
taproot	thin	fusiform	fusiform
stem	cylindrical	cylindrical	angular
leaves	ovate-oblong in outline pinnate	triangular in outline ternately compound	ovate-oblong in outline pinnate
	pilose-hirsute	glabrous	pilose-hirsute
bracts and bracteoles	well developed	obsolete	well developed

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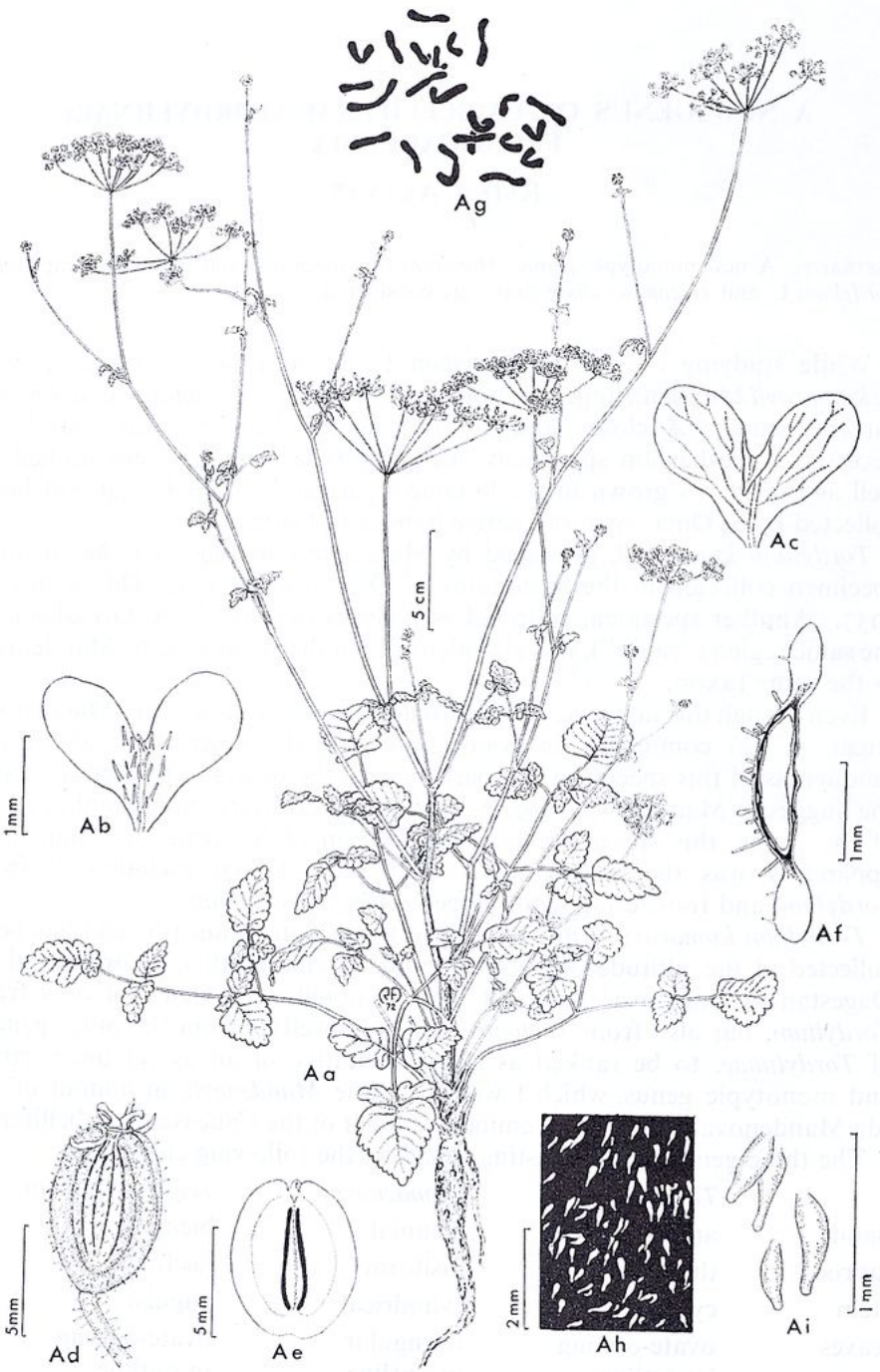

FIG. 1. *Mandenovia komarovii* (Manden.) Alava. Drawn from a specimen grown in the botanical garden from seeds collected by Š. Omarov in the type locality. Aa, habit; Ab, abaxial side of petal; Ac, adaxial side of petal; Ad, mature mericarp; Ae, commissural face of mericarp; Af, cross section of mericarp; Ag, karyotype; Ah, surface of lowest internode with hairs; Ai, individual stem hairs.

calyx	present, often poorly developed	well developed	obsolete
mericarps —margin	not emarginate strongly thickened moniliform	not emarginate strongly thickened smooth	strongly emarginate slightly thickened smooth
vittae	full length of dorsal face	full length of dorsal face	abbreviated

Mandenovia Alava, **gen. nov.**

Planta biennis, radice crassa fusiformis. *Caulis* erectus, ramosus, teres, striatus, viridis et basin versus violaceus, cum pilis obtusiusculis retrorsis obsitis vel raro glabriusculus. *Folia basalia* et caulina inferiora longe petiolata, ternatim decomposita (triangularia in circumscriptione), caulina superiora apetiolata, tripartita vel trisecta; lobi terminali e forma magnitudineque valde variabilia. *Umbella* decomposita terminalia, radii minute scabriusculi. *Involucri involucellisve* phylla obsoleta. *Florae* hermaphroditae vel unisexuales. *Calyci dentes* bene evoluti. *Petala* alba cum lacinula inflexa, dorso pilis tubulosis paullo obsitus. *Stylopodium* conicum cum margine undulata, stylis revolutis. *Fructus* obovato-ellipticus a dorso compressus et cum pilis tubulosis vel leviter vesiculosis obsitus, margine valde tumido laevissime cinctus. *Vallecula* univittata, commissura bivittata. *Vittae* mericarpium facies aequilongi.

Mandenovia komarovii (Manden.) Alava, **comb. nov.** Figs 1 & 2.

Syn.: *Tordylium Komarovi* Manden. in Not. Syst. Geogr. Inst. Bot. Tbilisiensis 9: 41–42, fig. 1 (1940).
Trigonosciadium komarovii (I. Mand.) Tamam. in Grossh., Fl. Kavkaza 7: 134, map 143 (1967).

Branching biennial with thick spindle-shaped taproot. Stems cylindrical, striate, 50–70 cm high, with distinct "skittle-shaped" hairs especially on lower internodes which are dark bluish-violet in colour, or stems rarely glabrous. Ternately decompound leaves glabrous with long petioles except for the upper cauline leaves which are apetiolate. Lobes, especially the larger terminal ones of basal and lower cauline leaves, ovate to elliptic, coarsely crenate; those of upper cauline leaves entire or nearly so, 8–10 times as long as broad; in some plants they are round-ovate and crenate. Leaf sheaths glabrous with hairy margins. Compound umbels terminal, 5–8-rayed, rays subequal, 3–4 cm long, slightly scabrous. Bracts and bracteoles obsolete. Hermaphrodite and unisexual flowers present in the same umbellule, flowers 10–14, pedicels as long or slightly longer than mature mericarps. Sepals well developed, linear-subulate, green, persistent in mature mericarps. Petals white with inflexed apices, peripheral ones slightly radiant with two equal to subequal lobes, all slightly hairy on abaxial side. Stylopodium conical with undulate margin, styles divergent. Mericarps obovate-elliptic, 4·5–6 × 6–7 mm, abaxial face with tubular to slightly vesicular hairs, margin strongly thickened and smooth, adaxial face orange-brown in colour. Dorsal vittae 4, commissural 2. Vittae as long as the face of the mericarp. $2n = 22$. Fl. 7 (–8). Dry stony places, 1200–1550 m.

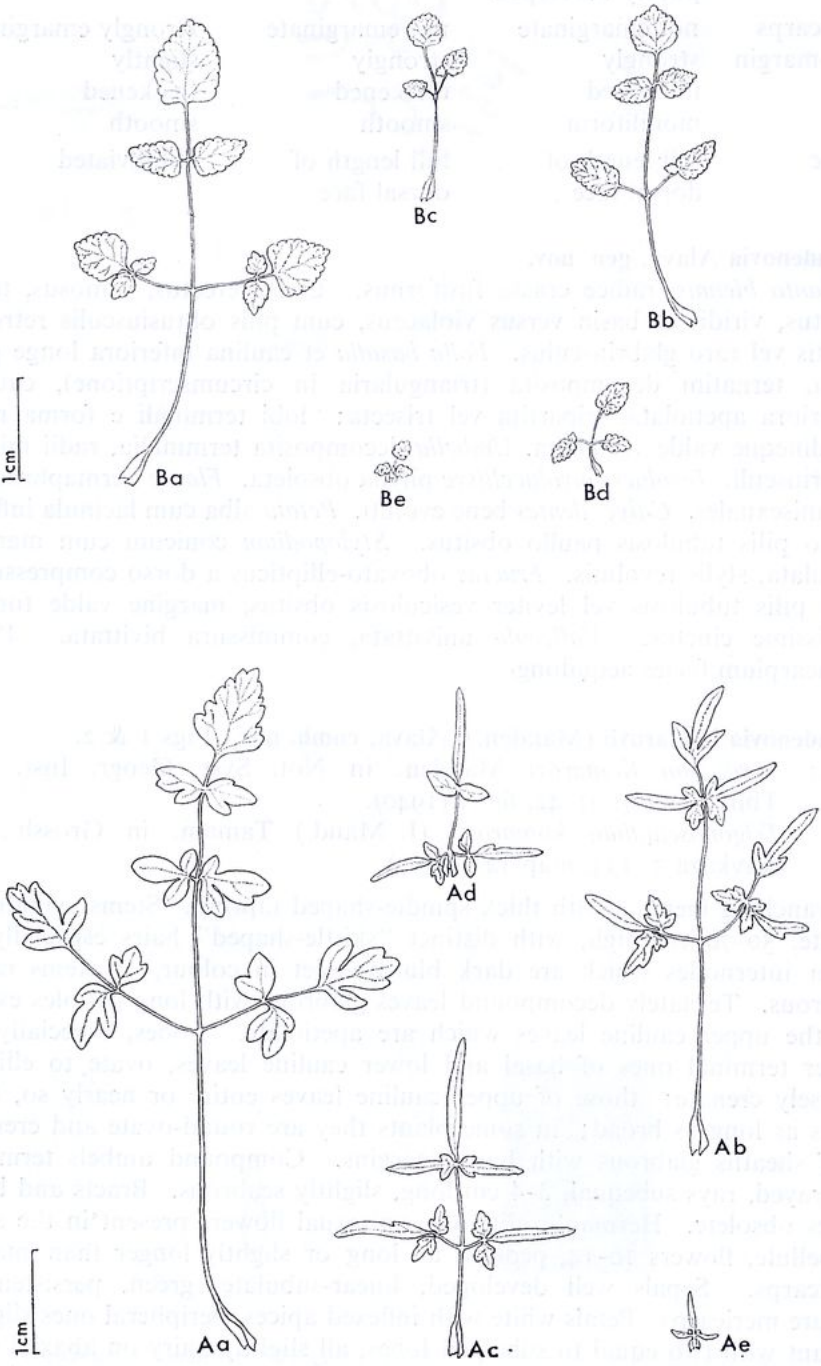

FIG. 2. *Mandenovia komarovii* (Manden.) Alava. Leaf types. Aa and Ba, basal leaves; Ab–Ae and Bb–Be, leaves of different parts of stem.

Syntypes. USSR, Dagestan: ad ripam sinistram fl. Avarskoie Koisu prope p. Tlarata, 1500–1550 m, 30 vii 1937, (fl. fr.) *A. Doluhanov* (TBI); distr. Andi, Danuch, 7 viii 1915, *A. Grossheim* (TBI).
Other material studied:

USSR. Georgia, Pirikitskaja Hevsuretia, in faucibus Schatil, 25 vii 1938, *D. Grigoraschvili* (TBI, TUR); Dagestan, Tlarata, Avraskoie Koisu basin, 1450 m, 5 ix 1968, *Š. Omarov*, seed collection. Grown in the botanical garden of the University of Turku (TUR).

In respect to the form of the leaf lobes, especially to the terminal lobes of the cauline leaves, *M. komarovii* shows considerable variation. As described by Mandenova, (1940, p. 41), the terminal lobes of cauline leaves are linear and entire, 8–10 times as long as broad. Most of the specimens grown in the botanical garden were of this type (fig. 2, Aa–Ae). However, among them were individuals which had terminal lobes of the cauline leaves broadly ovate-elliptic and distinctly crenate (fig. 2, Ba–Be). To separate these two forms the latter is named f. *crenatiloba*.

M. komarovii (Manden.) Alava f. **crenatiloba** Alava, **f. nov.** Loba terminalia valde ovato-elliptici, crenati.
USSR. Dagestan, Tlarata, Avarskoie Koisu basin, 1450 m, 5 ix 1968, *Š. Omarov*, seed collection. Grown in the botanical garden of the University of Turku (TUR).

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