

A NEW SPECIES OF ACONOGONON FROM UPPER BURMA AND YUNNAN

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ABSTRACT. The new species *Aconogonon rhombitepalum* S.-P. Hong (Polygonaceae) is described and illustrated from the Upper Burma and Yunnan province in China. The pollen morphology of this species is given, and affinities are discussed.

During a taxonomic revision of the genus *Aconogonon* in Himalaya and adjacent regions the following distinct new species from Upper Burma and Yunnan has been found.

Aconogonon rhombitepalum S.-P. Hong, sp. nov.

Fig. 1, 2.

Affinis *A. hookeri* (Meisn.) Hara sed floribus clare hermaphroditis, tepalis rhombiformibus, apice acuto, 3–3.8mm longis, pedicellis 1.2–2.1mm longis et pollinis granis vulgo oblato-sphaeroideis differt.

Perennial herb, 25–40cm tall. *Stem* simple, erect, densely pubescent with straight or sometimes slightly retrorse long yellowish hairs. *Leaves* alternate, mostly caudate, ovate or rarely broadly elliptical, 5–6.5 × 2.4–3.9 cm, sometimes slightly shiny above, subacute to broadly rounded at the apex, rounded to shortly attenuate at the base, entire, ciliate and densely to sparsely hirsute on both sides, particularly along veins; petiole pubescent, 0.9–1.5 cm long. *Ochrea* 1.2–3 cm long, tubular, membranous, pubescent, partly or fully wrapping the stem, easily torn or sometimes keeping the tubular shape. *Inflorescence* a slender spike-like terminal panicle with few branches, roughly 5–8.5 cm long; peduncle pubescent; pedicels glabrous 1.2–2.1 mm long. *Flowers* hermaphrodite; tepals unequal, dark-reddish, glabrous, rhomboid, acute, 3 larger ones 3–3.8 × 1.5–2.1 mm, 2 smaller ones 2.4–3.4 × 1.2–1.5 mm; venation of mostly 3–4 veins arising from the base. *Stamens* 8; filaments 0.6–0.8 mm long, glabrous; anthers c.0.4 mm long. *Pollen grains* usually oblate-spherical, c.22 × 26 µm, 3-colporate, colpus c.14 µm long; exine tectate, foveolate, scattered with microspinules. *Ovary* ovate, trigonous; styles 3, somewhat filiform, c.0.4 mm long (including stigma); stigmas capitate, somewhat elongated. *Achene* ovoid, c.3 × 1.4 mm (immature stage), brown.

Type: Upper Burma, N'Maikha-Salween ('Salwin') divide, western flank of the Chimi-Li, 26°23'N, 98°48'E, 3350 m, ix 1924, Forrest 25039 (holo. E; iso. BM, NY).

Other material examined:

UPPER BURMA: West flank of N'Maikha-Salween ('Salwin') divide, 26°24'N, 98°48'E, 3660 m, vi 1925, Forrest 26854 (BM, E, NY, UPS, US); Paij-aiung Bum?, 3660–3960 m, 19 vii 1931, Kingdon Ward 3443 (E).

CHINA: Yunnan province, without precise locality, 1931, Forrest 29864 (BM, E).

Distribution and habitat: *A. rhombitepalum* is known from two localities in Upper Burma as well as from Yunnan (presumably near Tali) in China. The known altitudinal range is 3350–3960 m. The species grows on ledges of cliffs or on stony alpine meadows.

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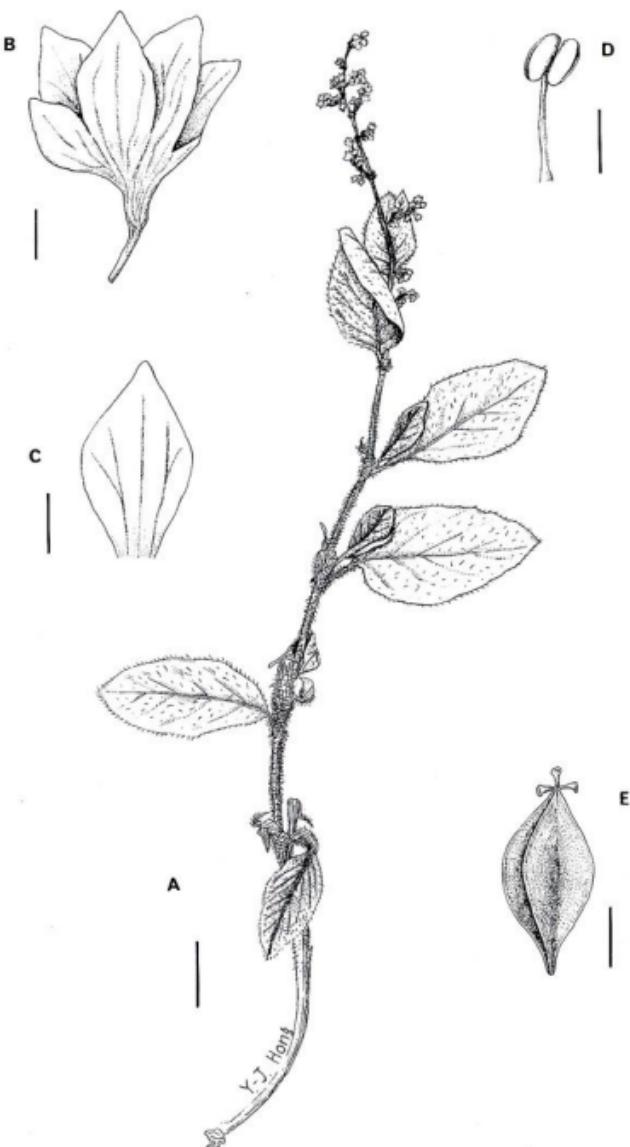


FIG. 1. *A. rhombitepalum*. A, habit; B, flower; C, tepal-segment; D, anther and filament; E, fruit (immature stage) with style and stigma. A from Kingdon Ward 3443; B, C, D, E from Forrest 26854. Scales: A = 2cm; B, C, E = 1mm; D = 0.5mm.

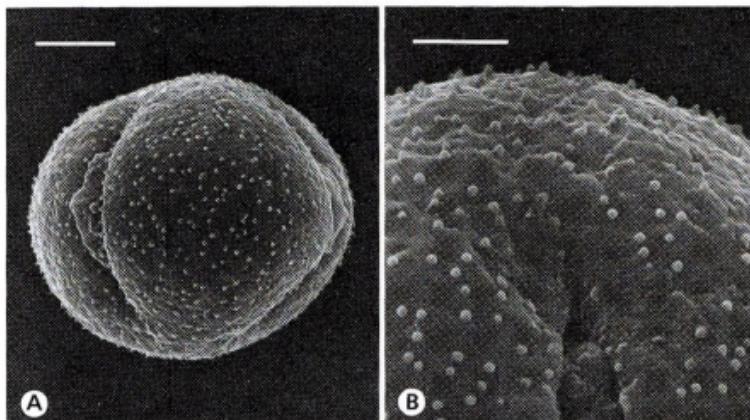


FIG. 2. The pollen morphology of *A. rhombitepalum*. A, equatorial view (SEM); B, the surface sculpturing pattern (SEM). From Forrest 25039. Scales: A = 6 µm; B = 3 µm.

TABLE I
Differential characters between *Aconogonon rhombitepalum* and *A. hookeri*

	<i>A. rhombitepalum</i>	<i>A. hookeri</i>
Plant	bisexual	dioecious
Tepals	3–3.8mm long, rhomboid, acute	1.6–2.5mm long, ovate, obtuse to rounded
Pedicels	1.2–2.1mm long	0.5–0.9(1.1)mm long
Pollen grains	usually oblate-spheroidal	prolate-spheroidal

A. rhombitepalum is closely related to *A. hookeri*, a widespread species in Himalaya (Sikkim, Bhutan, and the SE Tibet, Yunnan and Szechuan provinces in China), but differs for example in its hermaphrodite flowers, rhomboid, acute and much longer tepals, slightly longer pedicels, and in having usually oblate-spheroidal pollen grains (see Table 1). All species of *Aconogonon* have normally hermaphrodite flowers, except *A. hookeri* which is dioecious, and their pollen grains are usually prolate-spheroidal or spheroidal, rarely prolate or oblate-spheroidal (Hong. in prep.).

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