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湖南参属的归并及亚洲[illegible]木属（五加科）的一个新种和一些名称的变更*

文 军[1]，LEE Chung-Hee[1]，邓云飞[2]
（1 *Department of Botany*，*The Field Museum*，1400 S. Lake Shore Dr.，Chicago，Illinois 60605－2496 USA；
2 中国科学院华南植物研究所，广东 广州 510650）

摘要：分子与形态证据表明湖南参（*Hunaniopanax hypoglaucus* C. J. Qi &T. R. Cao）起源于[illegible]木属（*Aralia* L.），湖南参的近缘种为寄生五叶参（*Aralia parasitica*）和轮伞五叶参（*Aralia verticillata*），形态证据支持湖南参为轮伞五叶参的姐妹种，此2种具轮伞花序这一共衍征。为了保证[illegible]木属的单系性，现将湖南参并入[illegible]木属，并作如下新组合：*Aralia hypoglauca*（C. J. Qi &T. R. Cao）J. Wen & Y. F. Deng. 本文报道了湖南参在广西的新分布。目前的形态学和分子数据均不支持早先提出的湖南参与树参属（*Dendropanax*）的近缘关系。本文亦报道了[illegible]木属的1新种、2新种组合和1个新名称：*Aralia shangiana* J. Wen. sp. nov.（向氏五叶参，新种）；*Aralia glabrifoliolata*（C. B. Shang）J. Wen. comb. nov.（光叶五叶参，新组合）；*Aralia stellata*（King）J. Wen，comb. nov.（星毛羽叶参，新组合）和 *Aralia delavayi* J. Wen. nom. nov.（云南五叶参，新名称）。

关键词：湖南参属；羽叶参属；[illegible]木属；羽叶参组；五加科；湖南参；光叶羽叶参；新组合；新名称
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On Merging *Hunaniopanax* with *Aralia* (Araliaceae), with Description of a New Taxon and Additional Nomenclatural Changes in Asian *Aralia*

WEN Jun[1]，LEE Chung-Hee[1]，DENG Yun-Fei[2]
（1 *Department of Botany*，*The Field Museum*，1400 S. Lake Shore Dr.，Chicago，Illinois 60605－2496 USA；
2 *South China Institute of Botany*，*Chinese Academy of Sciences*，Guangzhou 510650，China）

Abstract: Molecular and morphological evidence suggests that the newly described *Hunaniopanax hypoglaucus* C. J. Qi &T. R. Cao is nested within *Aralia* L. Specifically *Hunaniopanax* is closely related to *Aralia parasitica* and *A. verticillata*. Morphological data support its sister species relationship with *A. verticillata* because the two taxa share a synapomorphy of verticillate pattern of inflorescence. To maintain the monophyly of *Aralia*, *Hunaniopanax* is herein merged with *Aralia*, and a new combination, *Aralia hypoglauca* (C. J. Qi &T. R. Cao) J. Wen & Y. F. Deng, is made. *Aralia hypoglauca* is also

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作者简介：文军，女，教授，主要从事植物分类学研究。

newly recorded from Guangxi, China in this study. The previously hypothesized close relationship of *Hunaniopanax* with *Dendropanax* Decne. & Planch. was refuted by our micromorphological examination as well as the DNA data. A new species, *Aralia shangiana* J. Wen, is herein described and two new combinations and a new name are also proposed: *Aralia glabrifoliolata* (C. B. Shang) J. Wen, comb. nov., *A. stellata* (King) J. Wen, comb. nov., and *A. delavayi* J. Wen, nom. nov.

Key words: *Hunaniopanax*; *Pentapanax*; *Aralia*; sect. *Pentapanax*; Araliaceae; *Aralia hypoglauca*; *Aralia delavayi*; *Aralia glabrifoliolata*; *Aralia stellata*.

Hunaniopanax C. J. Qi & T. R. Cao (Araliaceae) is a monotypic genus recently described from Hunan, China, consisting of *H. hypoglaucus* C. J. Qi & T. R. Cao (Qi, 1988). Qi (1988) hypothesized *Hunaniopanax* as a possible close relative of *Pentapanax* Seem. or *Dendropanax* Decne. & Planch. *Pentapanax* and *Dendropanax* are highly distinct genera within Araliaceae (Harms, 1897; Wen *et al*, 2001), belonging to different tribes. Shang and Li (1990) argued that *Hunaniopanax* is within the variational range of *Pentapanax*, differing only in its simple leaves. Qi (1988) considered the presence of the dotted glands on the leaves of *Hunaniopanax* as evidence suggesting its link to *Dendropanax*, which possesses simple leaves commonly with oil glands. Shang and Li (1990) suggested that the "glands" on the leaves of *Hunaniopanax* were cuticles. This observation was confirmed by Wen (2002) with examinations under scanning electron microscopy. The cuticles on the lower leaf surface of *Hunaniopanax* are gland-like projections referred to as coronulate cuticle type (Hardin & Beckman, 1982). Shang and Li (1990) transferred *Hunaniopanax* to *Pentapanax*. The phylogenetic and taxonomic position of *Hunaniopanax* thus needs to be evaluated.

The genus *Pentapanax* was established by Seemann in 1864, based mainly on three characters: valvate aestivation, pinnately compound leaves, and connate styles. Bentham and Hooker (1867) pointed out that *Pentapanax* has imbricate aestivation like *Aralia* L. (cf. Seemann 1864) and thus regarded the genus as a close affinity of *Aralia*, differing only in the connate styles in taxa of *Pentapanax*. Harms (1896) argued that there was little distinction between *Pentapanax* and *Aralia*, and pointed out that the connation of styles did not hold true as a generic character for *Pentapanax* because *Pentapanax racemosus* Seem. has nearly distinct styles. Shang (1985a) regarded the connation of styles as an unreliable character to differentiate *Pentapanax* from *Aralia*, and transferred three species of *Aralia*: *A. caesia* Hand.-Mazz., *A. plumosa* H. L. Li, and *A. wilsonii* Harms, to *Pentapanax*. Shang and Li (1990) acknowledged the close similarity and relationship between *Aralia* and *Pentapanax*, and the difficulties to define *Pentapanax* as a genus because the connation of styles was highly variable within *Pentapanax*. They proposed that *Pentapanax* may be defined by the presence of proleptic buds in contrast to mixed buds in its close relative *Aralia*.

Wen (1993) examined the morphological character variation and the historical development of generic concepts of *Aralia*, *Pentapanax*, and their close relatives. She reported that the distinctions between *Aralia* and *Pentapanax* were minor and proposed treating *Pentapanax* as a section of *Aralia*. Only the presence of bracts at the base of the inflorescence appears to be a morphological synapomorphy of *Pentapanax*, although this character is sometimes present in *Aralia elata* Seem. (J. Wen, pers.

observ.). Subsequent phylogenetic analyses (Wen *et al*, 2001) suggest that *Pentapanax* is derived from *Aralia*, although a few workers (e.g., Li, 1942; Hoo &Tseng, 1978; Shang, 1985b) considered *Pentapanax* as a more primitive member in the tribe Aralieae.

Wen (2002) formally made the nomenclatural change of *Pentapanax*, treating it as *Aralia* sect. *Pentapanax* (Seem.) J. Wen. She concluded that *Pentapanax* was established on the basis of an erroneous observation of petal arrangements in buds (valvate vs. imbricate aestivation), and insufficient understanding of two additional characters: pinnate leaves and connate styles. As we know now (Shang &Li, 1990; Wen, 1993; 2002), the leaves within *Pentapanax* vary from pinnate (e.g., in *P. henryi* Harms), to bipinnate [e.g., in *P. wilsonii* (Harms) C. B. Shang], to tripinnate [e.g., in *P. plumosus* (H. L. Li) C. B. Shang]. Likewise, taxa of *Pentapanax* show a wide range of variation in the connation of styles, varying from connate (e.g., in *P. elegans* Kooders), to distinct [e.g., in *P. tomentellus* (Franch.) C. B. Shang].

A phylogenetic analysis of the *Aralia-Panax* complex has been recently conducted using molecular markers including sequences of the internal transcribed spacer (ITS) regions of nuclear ribosomal DNA, and the *trnL-F* region and *ndhF* gene of chloroplast DNA (Figs. 1—3, J. Wen and C.-H. Lee, in prep.). All three datasets strongly suggest a close relationship of *Hunaniopanax* with *Aralia verticillata* (Dunn) J. Wen and *A. parasitica* (Don) J. Wen, both of which belong to *Aralia* sect. *Pentapanax*. *Hunaniopanax* is quite distinct from *Dendropanax* phylogenetically (Figs. 1—3).

Morphologically *Hunaniopanax* is highly similar to a small group of species of *Aralia* including *A. laevis* (not sampled yet in the molecular phylogenetic study), *A. parasitica*, and *A. verticillata*, sharing the following synapomorphies: entire leaflet margin, presence of coronulate cuticles, and small inflorescences with fewer than 13 umbels. Among the three close relatives, *Hunaniopanax* shares a synapomorphy of verticillate inflorescence with *A. verticillata*. The morphological evidence thus supports the close relationship of *Hunaniopanax* with *A. parasitica* and *A. verticillata*, and further points to its sister relationship to *A. verticillata*.

Based on evidence from both molecular phylogenetic analyses (Figs. 1—3) and morphological observations, we herein formally transfer *Hunaniopanax hypoglaucus* to *Aralia*. *Aralia hypoglauca* is also newly recorded here from Guangxi.

Aralia hypoglauca (C. J. Qi &T. R. Cao) J. Wen &Y.-F. Deng, comb. nov.

Hunaniopanax hypoglaucus C. J. Qi &T. R. Cao, Acta Phytotax. Sin. 26: 49, 1988. *Pentapanax hypoglaucus* (C. J. Qi &T. R. Cao) C. B. Shang &X. P. Li in Y. W. Yuan &al. (eds.), Proc. Intern. Symp. Bot. Gard.: 626, 1990. TYPE: CHINA. HUNAN: Chengbu, Jingtongshan, 1400 m, in mixed evergreen and deciduous forest, epiphytic on big trees or dead trees, 23 Sep 1983, in flower and young fruit, T.-R. Cao 830118 (Holotype: CSFL; isotype: PE!).

Small epiphytic shrubs, 0.5—1 m tall. Stems grayish brown, cracked, stem of second-year growth ca. 3 mm in diameter, glabrous, dark brown, lenticels sparse, 1.5—4 mm long, 0.6—0.7 mm wide. Leaves exstipulate, simple, petioles glabrous, 1—4.5 cm long, with a joint or articulation

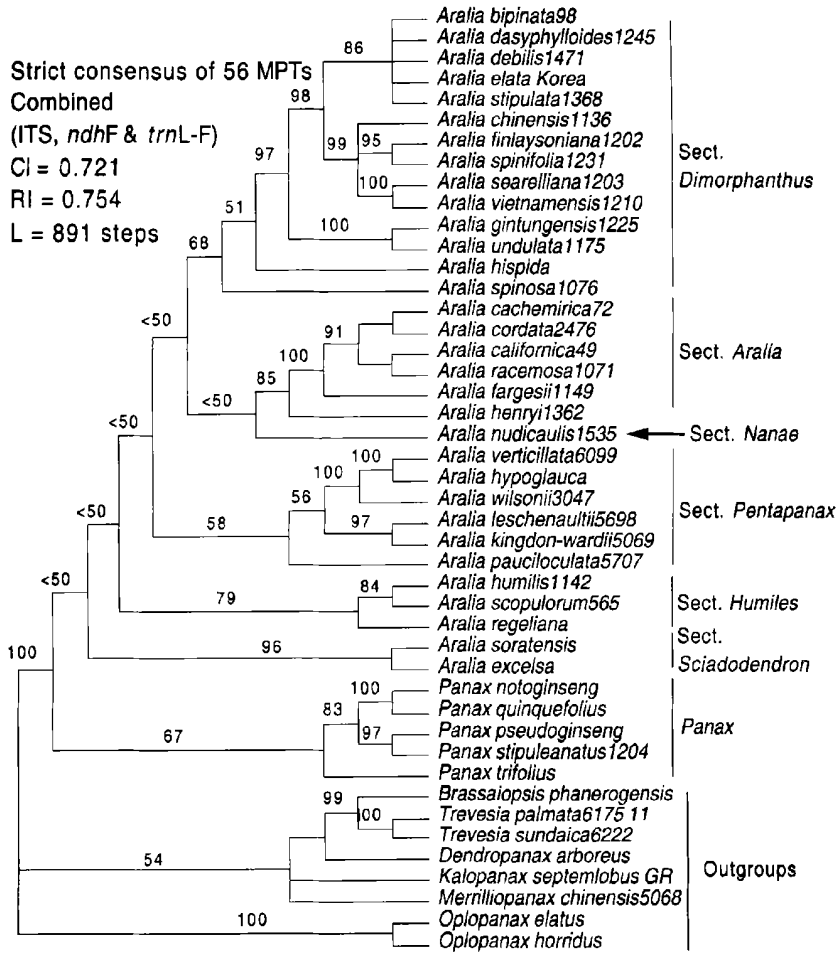

Fig. 1 The strict concensus tree of 56 maximally parsimonious trees for the *Aralia-Panax* complex using the combined data of the nuclear ribosomal ITS sequences, and the chloroplast *ndh*F and *trn*L-*trn*F regions (numbers above lines indicate bootstrop values with 100 replicates).

at the junction of the petiole and the blade; leaflets thick chartaceous, ovate to elliptic, 8—10 cm long, 5.5—6.2 cm wide, acute at apex, broadly cuneate to truncate at base, sometimes assymetric, entire at margin, lateral veins 7—8, inconspicuous, adaxial surface glabrous and green, abaxial surface glabrous and glaucous, densely covered with coronulate cuticles. Inflorescence terminal at the branch apex, ca. 4 cm long, often with 2 umbels at the base, then with 1—2 verticillate umbels on the upper portion of the main axis, each lateral umbel with 15—18 flowers, each verticillate umbel consisting of 20—30 flowers; inflorescence bracts ca. 10, persistent, arranged in several whorls, 4—5.5 mm long, 3.5—4.5 mm wide, ovate, dark brown; lateral umbels with peduncles 1.2—1.5 cm long; pedicels pubescent, tip slightly enlarged, subtended by a few bract-like appendages, 0.7—1.3 mm long; pedicels 5—10 mm long, bracteoles narrowly, 1.5—2 mm long, 0.8—1 mm wide. Flowers

white; sepals triangular, 0.65—0.8mm long, 0.5—0.6mm wide; petals ovate, 1.3—1.5mm long, 0.9—1 mm wide; stamens not seen; ovaries 5-locular, styles slightly divided at the tip, or appearing slightly enlarged at the tip. Young fruits ovately globose, 3.5—4 mm long, 3.2—3.7 mm wide, with persistent styles and sepals, styles 1.2—1.5 mm long, slightly divided at the tip.

Phenology: Flowering in September; fruiting in October.

Distribution: at the border between Hunan and Guangxi provinces, China.

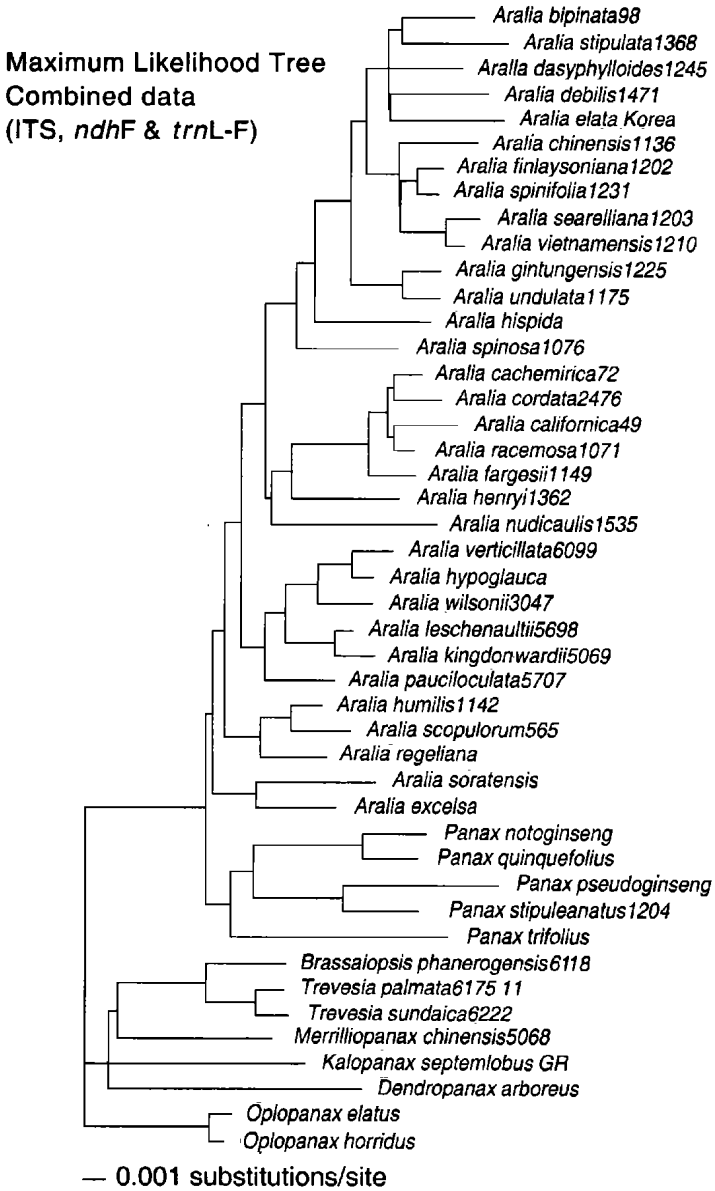

Fig. 2　The maximum likelihood tree of the *Aralia-Panax* complex using the combined data of the unclear ribosomal ITS sequences, and the chloroplast *ndh*F and *trn*L-*tm*F regions.

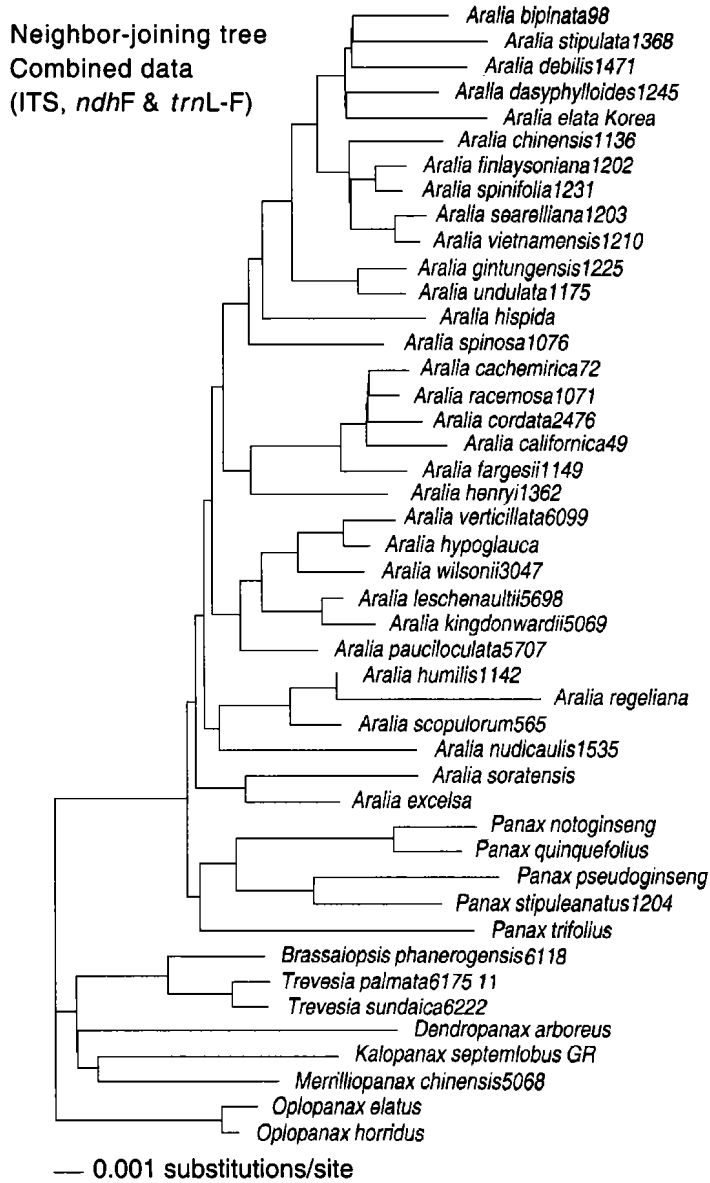

Fig 3 The neighbor-joining tree of the *Aralia-Panax* complex using the Kimura two-parameter distances the combined data of the nuclear ribosomal ITS sequences and the chloroplast *ndh*F and *trn*L-*trn*F regions.

Ecology: in mixed forests, epiphytic on trees; 700—1 400 m.

Additional specimens examined: **China**. GUANGXI: Quan Xian, Chaihai Xiang, Wangfu, Kulianan, 700—1 200 m, in dense forests, 23 Oct 1958, fr., Z. Z. Chen 52602 (IBSC).

The simple leaves in *Aralia hypoglauca* most likely represent a reduction from pinnate leaves.

Below we also describe a new species of *Aralia* sect. *Pentapanax* and make nomenclatural changes for three additional taxa of the section.

Aralia shangiana J. Wen, sp. nov., Fig. 4.

TYPE: CHINA. Yunnan, ad boreo-orientem urbis Dali (Talifu), vic. Yidjiatschwang, 1 700 m, 22 May 1915, H. F. v. Handel-Mazzetti 6424 (Diar. Nr. 1141) (Holotype: W!; isotype: WU!).

Species nova architectura foliorum, forma atgue magnitudine foliolorum, inflorescentia *A. tomentellam* simulans, and foliolis inflorescentis glalsis; differt a *A. caesia* foliolis margine irregulariter serrulatis, apice acuminatis.

Deciduous shrubs. Stems grayish brown, with second year twigs 4.5—5.0 mm in diameter, lenticels inconspicuous. Leaves exstipulate, 20—25 cm long, 14—18 cm wide, with 5 leaflets, petioles glabrous, its base covered with wooly hairs, 8—10 cm long; leaflets membranaceous, ovate, 7—9.5 cm long, 4—6.2 cm wide, acuminate at apex, subcordate to rounded at base, sometimes asymmetric, serrate at margin, lateral veins 8—9, conspicuous above and below, both abaxial and adaxial surfaces glabrous and green, petiolules 1—5 mm long, glabrous. Inflorescence terminal, purplish and glabrous, 20—25 cm long, 15—20 cm wide, with 15—20 primary branches paniculately arranged on a main axis; bracts at the base of the inflorescence triangular to ovate, 5—12 mm long, 7—9 mm wide, more or less pubescent; primary inflorescence branches with 1—3 umbels, only the terminal umbel becoming mature; terminal umbels with 30—40 flowers, lateral umbels poorly developed, peduncles 8—10 cm long; pedicels glabrous, 7—8 mm long; bracts of primary inflorescence branches lanceolate, 7—9 mm long, 2.5—2.8 mm wide, bracteoles lanceolate, entire at the margin, 1.5—2 mm long, 0.4—0.5 mm wide. Sepals rounded, 0.3—0.4 mm long; petals ovate, 1.8—2 mm long, 0.7—0.9 mm wide; styles 5, divided. Mature fruits not seen.

Phenology: Flowering in May; mature fruits not seen. Flowers appear at the same time as leaves.

Distribution: Only recorded from Yunnan province of China.

Ecology: Montane evergreen forests; 1 700—2 500 m.

Additional specimens examined: **China**. YUNNAN: in regione calide temperata prope unbem Yunnanfu, vic. Hwangduho, 2 100 m, 5 Jun 1917, H. F. v. Handel-Mazzetti 13086 (Diar. Nr. 1947, W, WU); Bingchuan, Jizhushan, near Zhushengshi, on mossy rocks in shady montane evergreen forest, 2 500 m, 24 Jul 1997, J. Wen 3040 (CS, F).

Aralia shangiana is named in honor of Professor C. B. Shang from Nanjing Forestry University, Nanjing, China, who has contributed greatly to our understanding of Araliaceae in China and Indochina.

The new species is characterized by its membranaceous leaflets with serrate margins and subcordate to rounded bases, and glabrous inflorescence.

Aralia shangiana resembles *A. tomentella* in leaflet size, shape, and the architecture of leaves and inflorescence. It differs from *A. tomentella* in its thin membranaceous (vs. thick papery) leaflets and its glabrous (vs. more or less pubescent) inflorescences. *Aralia caesia* also has glabrous inflorescence. *Aralia shangiana* is distinguished from *A. caesia* in the former's ovately elliptic leaves, irregularly serrate leaflet margin, and acuminate apex whereas *A. caesia* has ovately round leaflets with serrulate margin and acute apex.

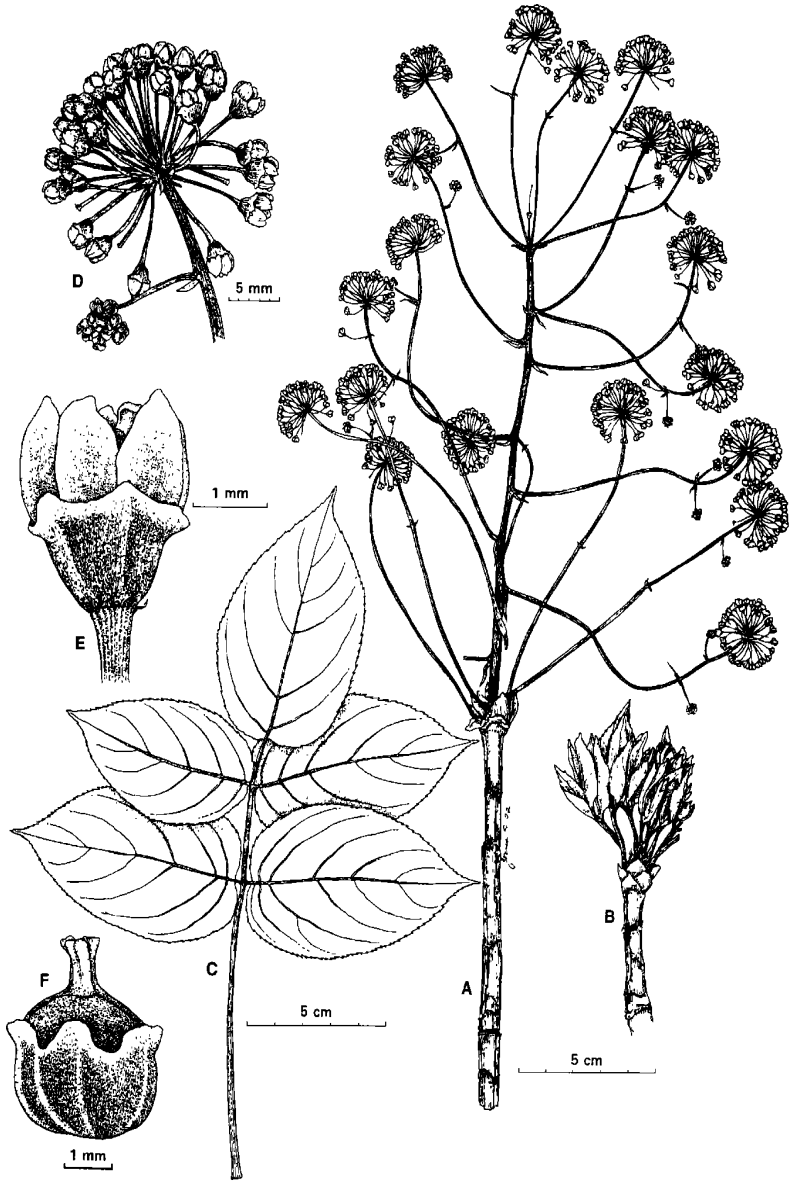

Fig 4 *Aralia shangiana* J. Wen. A. Inflorescence branch. B. Leaf branch. C. Leaf. D. Umbel. E. Flower. F. Flower after shedding of petals and stamens.

Aralia delavayi J. Wen, nom. nov.

Pentapanax yunnanensis Franch., J. Bot. (Morot) 10: 305. 1896. TYPE: CHINA. Yunnan, Eryuan, in monte Ma-eul-chan, P. J. M. Delavay s. n. (Holotype: P !; holotype fragment, A !).

Shrubs to small trees, 2—8 m tall. Leaves exstipulate, 10—25 cm long, 7—12 cm wide, pin-

nately compound with (3—) 5 leaflets; petioles glabrous, purplish, 4—10 cm long; leaflets papery, ovate to broadly so, 4.2—9.5 cm long, 2.5—6 cm wide, acute at apex, broadly acute to rounded at base, serrate at margin, lateral veins 5—7, both abaxial and adaxial surfaces glabrous and green, or rarely abaxial surface pilose, petiolules 0—5 mm long, glabrous. Inflorescence terminal at the branch apex, pilose, purplish, slightly bloomy, 17—40 cm long, 12—20 cm wide, consisting of 10—15 primary branches paniculately arranged on a main axis; inflorescence bracts 7—10, pilose, persistent, arranged in several whorls, 6—9 mm long, 4—5 mm wide, ovate in shape, brown in color; each primary branch consisting of 1—10 umbels, umbellately or sometimes verticillately or rarely paniculately arranged, terminal umbels with 25—35 flowers, lateral umbels 10—15 flowered, with peduncles 1.5—4 cm long; pedicels glabrous, slightly enlarged at the tip, pedicels of terminal umbels 9—13 mm long, those of lateral umbels 5—10 mm long; bracts of primary branches narrowly triangular, 6—10 mm long, 2.5—3.5 mm wide, pubescent at least at the upper portion, bracteoles lanceolate, ciliate, 2—2.3 mm long, 0.8—0.9 mm wide. Sepals rounded, 0.3—0.4 mm long, 0.5—0.6 mm wide; petals ovate, 2.2—2.4 mm long; stamens 5, filaments 2.5—2.8 mm long, anthers 0.5—0.6 mm long; styles undivided to rarely divided to the middle, 0.5—0.7 mm long after falling off of petals, floral disk flat. Fruit globose, 4.5—5.5 mm in diameter, persistent styles 1.5—2 mm long, undivided to divided to the middle (e.g., G. Forrest 12564, BM). Seeds kidney shaped, 3.5—3.8 mm long, 1.5—1.7 mm wide, ca. 0.3 mm thick.

Phenology: Flowering in May and June; fruiting in July and August. Inflorescences appear prior to the leaves or at the same time.

Distribution: Northwestern Yunnan and southwestern Sichina, China.

Ecology: In shrublands of river valleys and mountain slopes, dry habitats; 1 300—1 900 m.

Additional specimens examined: **China**. SICHUAN: Dukou Xian, in shrublands on mountain slopes, May 1984, in fl., S. K. Wu 840101 (KUN). YUNNAN: Bingchuan, from Pianjing to Shazhijie, 17 Oct 1946, T. N. Liou 21674 (PE). Dayiao Xian, S. W. China, location unknown, 1934—35, M. Chen 2048 (KUN); on the way from Shiyang to Shantai, 1 500—1 300 m, in shrublands in river valley, 8 Jul 1965, in young fr., *Woody Oil Plants Investigation Team* 65—0321 (KUN, 2 sheets). Luquan Xian, Wumeng Xiang, 1 900 m, 12 Jun 1952, in fl., P. Y. Mao 01257 (KUN, PE). G. Forrest 12564 (BM).

A new name, *Aralia delavayi*, is proposed for this species because *Aralia yunnanensis* Franch. already exists (Franchet 1896). The new specific epithet is chosen in honor of P. J. M. Delavay, who collected the type material.

This species is most similar to *Aralia caesia*, differing in its pilose inflorescence, green (vs. light green) leaflets with serrate (vs. serrulate) margin, ciliate bracteoles, and somewhat pilose bracts. It also resembles *A. tomentella*, but differing from the latter by *A. delavayi*'s rounded sepals, glabrous pedicels, purple and bloomy inflorescence.

Aralia stellata (King) J. Wen, comb. nov.

Pentapanax stellatus King, J. Asiat. Soc. Beng. 67: 193, 1898. TYPE: MYANMAR. Upper Burma, Fort Stedman, Nov 1892, in late fl. with a few young fr., A. Huk s. n. (Holotype: CAL !).

Shrubs or a small trees, sometimes scandant, 5—6 m tall. Stems light brown to grayish, with second-year twigs 8—11 mm in diameter. Leaves exstipulate, 22—28 cm long, 15—20 cm wide, with 5 or sometimes 3 leaflets, petioles somewhat pubescent, 8—13 cm long; leaflets subcoriaceous, oblong to broadly ovate, occasionally rounded, 9—11.5 cm long, 4.5—10.5 cm wide, acute to occasionally obtuse at apex, rounded to subcordate at base, sometimes assymetric, especially on lateral leaflets, entire to sparsely serrulate at margin, lateral veins 6—8, conspicuous above and below, adaxial surface green, glabrous, yet rough, abaxial leaflet surface densely covered with long curly hairs; petiolules 0—7 mm long, with wooly hairs or glabrescent. Inflorescence terminal, 20—40 cm long, 12—25 cm wide, with 20—25 primary inflorescence branches, paniculately arranged on a main axis, pubescent with reddish brown hairs, inflorescence bracts ca. 10, persistent, arranged in several whorls, 6—9 mm long, 4—6 mm wide, narrowly triangular, dark brown; each primary branch with 1—7 umbels, 3.5—10 cm long; terminal umbels with 20—30 flowers, with peduncles 1.5—3.5 cm long, lateral umbels 10—15 flowered, with peduncles 1.5—2.3 cm long; pedicels covered with curly hairs, pedicel tip slightly enlarged, pedicels of terminal umbels 9—14 mm long, those of lateral umbels 4—6.5 mm long; bracts of primary inflorescence branches narrowly triangular to lanceolate, 4.5—8.5 mm long, 2.5—3.8 mm wide, bracts at the base of lateral umbels narrowly triangular, 1.5—2 mm long, 0.8—1 mm wide, bracteoles lanceolate, 1.2—2 mm long, ca. 1 mm wide. Flowers whitish; sepals triangular, 0.4—0.5 mm long, 0.3—0.45 mm wide; petals ovate, 1.7—2 mm long, 1.2—1.3 mm wide; stamens 5, filaments 2.2—2.5 mm long, anthers 0.5—0.6 mm long; ovaries 5—6-locular, styles divided, with a slightly enlarged conical base, 1.8—2 mm long after falling off of petals. Fruits globose, 3.5—4 mm in diameter, with persistent styles divided to the middle.

Phenology: Flowering in November to December; fruiting in December to May.

Distribution: Northern Myanmar and Thailand.

Ecology: in deciduous and evergreen forests, commonly on limestone rocks or on ridges; 1 500—1 600 m.

Additional specimens examined: **Myanmar**. Kalaw, 5 500 ft, 10 May 1931, F. G. Dickason 5111 (A). **Thailand**. CHIANG MAI: Chiang Dae, Doi Chiang Dao Wildlife Sanctuary, west end of Dei Luang Valley, 1 500 m, 5 Nov 1995, open, fired-damaged, evergreen area in seasonal, former evergreen hardwood forest; rugged limestone terrain, tree 5—6 m, dbh 9 cm, *Natti & Pindar* T7 (CAS); Doi Chiengdao, 27 Nov 1961, under shrub, on stone in evergreen forest, fl. whitish, *K. Bunchuai* 23, no. 31932 (BKF); 24 Dec 1961, in fr., shrub common in deciduous forest, *K. Bunchuai* 93. no. 32030 (BKF, L); Doichiengdao, 1 600 m, 2 Dec 1961, tree 5 m, on limestone rocks, in open forest, *T. Smitinand & Anderson* 7288 (BKF); Doi Nom, 22 Nov 1963, tree ca. 6 m tall, common on hill, fl. white, *S. Phusomsang* 50, no. 28787 (BKF).

Aralia stellata is characterized by its dense and long curly hairs lower leaflet surface, entire to sparsely serrulate leaflet margin, terminal inflorescence with a main axis covered with reddish brown hairs.

Aralia glabrifoliolata (C. B. Shang) J. Wen, comb. nov.

Pentapanax glabrifoliolatus C. B. Shang, Acta Phytotax. Sin. 18: 94, 1980. TYPE: CHINA. Yunnan, Mar-li-po, Chung-dzai, in open thickets on rock mountain, 1 800—2 100 m, shrub, 8 ft, rare, 3 Nov 1947, K. M. Feng 12840 (Holotype: PE !; isotypes: A !, KUN !).

Shrubs or a small trees, 3—6 m tall. Stems light brown to grayish, with second—year twigs 6—9 mm in diameter. Leaves exstipulate, 30—40 cm long, 20—28 cm wide, with 5 leaflets, petioles glabrous, 8—10 cm long; leaflets subcoriaceous, oblong to broadly ovate, 12.5—18.5 cm long, 6—9 cm wide, acute at apex, rounded to subcordate at base, sometimes assymetric, especially on lateral leaflets, entire to aparsely finely toothed at margin, lateral veins 7—8, conspicuous above and below, both adaxial and abaxial surfaces green, glabrous, smooth; petiolules 3—11 mm long, glabrous. Inflorescence terminal, without a main axis, 10—25 cm long, 15—25 cm wide, with 8—15 primary inflorescence branches, umbellately arranged, pubescent, inflorescence bracts 10—15, persistent, arranged in several whorls, 12—20 mm long, 8—12 mm wide, ovate, brown; each primary branch 10—25 cm long, 4—8 cm wide, with 20—30 secondary branches, each with 1—4 umbels, 2.5—4.5 cm long; terminal umbels with 15—20 flowers, with peduncles 1.0—1.5 cm long, lateral umbels 8—12-flowered, with peduncles 0.7—1.0 cm long; pedicels pubescent, slightly enlarged at tip, pedicels of terminal umbels 5—7 mm long, those of lateral umbels 3—4 mm long; bracts of primary inflorescence branches narrowly triangular, 8—10 mm long, 5—7 mm wide, glabrous, bracts of secondary branches lanceolate, 7—8.5 mm long, 2.5—3.0 mm wide, bracts at the base of lateral umbels lanceolate to linear, 1.0—1.5 mm long, 0.3—0.5 mm wide, bracteoles lanceolate, glabrous, 1.0—1.3 mm long, ca. 0.5 mm wide. Sepals narrowly triangular, 0.4—0.5 mm long, 0.3—0.4 mm wide; petals ovate, 1.5—1.7 mm long, 1.2—1.3 mm wide; stamens 5, filaments 2.2—2.5 mm long, anthers 0.5—0.6 mm long; ovaries 5-locular, styles slightly divided, with a slightly enlarged conical base, 1.0—1.3 mm long after falling off of petals. Fruits ovately globose, ca. 5 mm long, 3.5—4 mm wide, with persistent styles divided at the tip.

Phenology: Flowering in August; fruiting in November.

Distribution: SE Yunnan (Malipo and Wenshan), China.

Ecology: in thickets to dense woods; 1 800—2 450 m.

Additional specimens examined: **China**. YUNNAN: Wenshan, Bozhushan, Laohuilong, from Dongqualin to Leidazhan, 2 450 m, 8 Aug 1993, in fl., in dense woods, Y.-M. Shui 003327 (PE).

This species resembles *Aralia leschenaultii* in the rounded leaflet base, and umbellately arranged primary inflorescence branches. However, umbels on primary inflorescence branches in *A. glabrifoliolata* are racemosely arranged, whereas umbels on primary inflorescence in *Aralia leschenaultii* are umbellately arranged. *Aralia glabrifoliolata* may be closely related to *Aralia tomentel-*

la, but is easily distinguished from the latter by the lack of a main inflorescence axis and the sparsely toothed to entire leaflet margin in *A. glabriefoliolata*.

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