

## 22. ARALIA Linnaeus, Sp. Pl. 1: 273. 1753.

楸木属 *cong mu shu*

*Dimorphanthus* Miquel (1840–1841), not *Dimorphanthes* Cassini (1818).

Trees, small, or shrubs, prickly, or unarmed, rhizomatous herbs, andromonoecious or hermaphroditic. Leaves 1–3-pinnately compound, rachis articulate; leaflets 3–20, entire to serrate, serrulate, crenate, or undulate; stipules connate with petioles at base. Inflorescence terminal or axillary, paniculate, corymbose or umbellate, usually consisting of umbels, capitula, or racemes, occasionally umbels solitary. Pedicels articulate below ovary. Calyx rim 5-dentate. Petals 5, imbricate. Stamens 5. Ovary 5(or 6)-carpellate, occasionally aborted to 3; styles 5, distinct or connate at base. Fruit a berry, ± globose, sometimes 3–5-angular. Seeds laterally compressed; endosperm uniform.

About 40 species: mainly in SE Asia and China, a few in the Americas; 29 species (17 endemic) in China.

The first author circumscribes *Aralia* to exclude the species treated here in *Pentapanax*. Wen, however, has provided evidence showing that this group is clearly nested within *Aralia* and must be included therein in order to avoid rendering *Aralia* paraphyletic. Wen's interpretation is favored by the second author. For further details and references see the discussion under *Pentapanax*.

A thorough revision of *Aralia* sect. *Dimorphanthus* was recently published by Wen (Cathaya 15–16: 1–187. 2004), treating material assigned to the first 19 species presented below. Wen adopted circumscriptions of several species that differ significantly from those used by the first author in the present treatment (most notably *A. armata*, *A. dasyphylla*, and *A. elata*).

Several species are used medicinally and as a vegetable (young stems and leaves).

- 1a. Prickly trees or shrubs (*A. sect. Dimorphanthus* (Miquel) Miquel).
  - 2a. Ultimate inflorescence units heads; flowers sessile or subsessile ..... 1. *A. dasyphylla*
  - 2b. Ultimate inflorescence units umbels; flowers with a distinct pedicel.
    - 3a. Leaflet margins crenate (sometimes sparsely so).
      - 4a. Leaflets glabrous ..... 2. *A. bipinnata*
      - 4b. Leaflets densely pubescent ..... 3. *A. decaisneana*
    - 3b. Leaflet margins serrate, biserrate, or serrulate.
      - 5a. Leaflets densely hirsute, leathery; inflorescence bracts and bracteoles abaxially densely hirsute; pedicels densely setose ..... 4. *A. searelliana*
      - 5b. Leaflets pubescent to rarely hirsute, appressed pubescent or glabrous, thinly papery to papery; if pedicels setose, leaflets less than 10 cm (*A. spinifolia*).
        - 6a. Leaflets mostly 15–25 cm, strigose; inflorescence hirsute ..... 5. *A. vietnamensis*
        - 6b. Leaflets usually less than 15 cm, not strigose; inflorescence not hirsute.
          - 7a. Leaves usually 3-pinnately compound (occasionally 2- or 4-pinnately compound).
            - 8a. Umbels 20–50-flowered; pedicels 8–25 mm; inflorescence bracts sometimes caducous at fruiting stage; fruit 4.5–5.5 mm in diam. .... 8. *A. armata*
            - 8b. Umbels 7–15-flowered; pedicels 5–13 mm; inflorescence bracts persistent; fruit 3–3.5 mm in diam. .... 7. *A. foliolosa*
          - 7b. Leaves 2-pinnately compound (occasionally 3-pinnately compound).
            - 9a. Leaves and inflorescence setose and prickly; prickles of two types (straight and slender; recurved and conic); pedicels setose and furfuraceous ..... 9. *A. spinifolia*
            - 9b. Leaves and inflorescence not setose; pedicels not setose and furfuraceous.
              - 10a. Leaflets abaxially green or yellowish green, pubescent, pilose, villous, or hirsute, cuticle striate.
                - 11a. Inflorescence glabrous or pilose.
                  - 12a. Umbels 20–50-flowered; leaflets 2.5–7.5 × 1–3.5 cm ..... 10. *A. finlaysoniana*
                  - 12b. Umbels 10–15-flowered; leaflets 6–14.5 × 2.5–6.5 cm ..... 8. *A. armata*
                - 11b. Inflorescence densely pubescent to tomentose.
                  - 13a. Umbels 20–50-flowered; pedicels 8–17 mm; leaflets basally subcordate to rounded ..... 6. *A. chinensis*
                  - 13b. Umbels 8–25-flowered; pedicels 2–11 mm; leaflets basally rounded to obtuse ..... 12. *A. thomsonii*
        - 10b. Leaflets abaxially glaucous or whitish green, often glabrous, sometimes pubescent; cuticle coronulate.
          - 14a. Leaves tomentose to canescent, at least pilose on veins or sometimes adaxially scabrous.
            - 15a. Leaves adaxially scabrous on veins, elsewhere glabrous ..... 13. *A. scaberula*
            - 15b. Leaves at least abaxially on veins tomentose to pilose.
              - 16a. Inflorescence with a primary axis 15–25 cm, longer than secondary axes; bracts 10–20 mm ..... 14. *A. gantungensis*
              - 16b. Inflorescence with a primary axis 2–5 cm, shorter than secondary axes; bracts 2–5 mm ..... 11. *A. elata*

- 14b. Leaves glabrous.  
 17a. Stems with prickles needlelike and straight, or straplike and recurved.  
 18a. Prickles needlelike and straight ..... 16. *A. echinocalis*  
 18b. Prickles straplike and recurved ..... 16. *A. officinalis*  
 17b. Stems with prickles conic and grayish.  
 19a. Inflorescence with a primary axis 5–20(–30) cm; leaflet margins undulate ..... 17. *A. undulata*  
 19b. Inflorescence with a primary axis longer than 35 cm; leaflet margin serrate.  
 20a. Small shrubs, 1–2 m tall; leaflets membranous, 3–6 × 1.2–3 cm; styles free ..... 18. *A. debilis*  
 20b. Shrubs or small trees, 2–10 m tall; leaflets papery to subleathery, 5–12 × 2.5–8 cm; styles united basally ..... 19. *A. stipulata*
- 1b. Perennial herbs, unarmed (*A. sect. Aralia*).  
 21a. Inflorescences corymbose, primary axis to ca. 5 cm.  
 22a. Leaflets 1–3.5 × 1–2 cm; margin deeply incised ..... 20. *A. apioides*  
 22b. Leaflets usually at least 3 × 2 cm, margin not incised.  
 23a. Lateral petiolules 5–25 mm; leaflets sparsely setose-scabrous ..... 21. *A. atropurpurea*  
 23b. Lateral petiolules 0–12 mm; leaflets strigose, villous or scabrous, not setose.  
 24a. Both surfaces of leaflets white strigose on veins, abaxially gray; umbels 10–30-flowered ..... 22. *A. yunnanensis*  
 24b. Both surfaces of leaflets sparsely scabrous or villous, abaxially green; umbels 3–20-flowered.  
 25a. Both surfaces of leaflets villous on veins, apex caudate, margin crenate ..... 23. *A. henryi*  
 25b. Both surfaces of leaflets sparsely scabrous, abaxially pubescent on veins, apex acuminate, margin serrate ..... 24. *A. fargesii*
- 21b. Inflorescences paniculate, primary axis longer than 10 cm.  
 26a. Leaflets broadly ovate, 2–4 × 2–4.5 cm, both surfaces sparsely white setose on veins, apex long acuminate; panicle sparsely branched, always with an axillary umbel at base ..... 25. *A. melanocarpa*  
 26b. Leaflets obovate, elliptic-obovate, oblong-obovate, or ovate; panicle well branched.  
 27a. Leaflets homomorphic (lateral and terminal leaflets similar in shape).  
 28a. Leaflets 3–5 × 1–2.5 cm, both surfaces setose, densely so on veins, apex long acuminate; panicle compact, umbels corymbosely arranged ..... 26. *A. kansuensis*  
 28b. Leaflets 4–15 × 3–9 cm, abaxially sparsely pubescent on veins, adaxially glabrous, apex acute; panicle sparsely branched, umbels racemosely arranged ..... 27. *A. cordata*  
 27b. Leaves heteromorphic (lateral and terminal leaflets of noticeably different shapes).  
 29a. Terminal leaflets obovate to elliptic-obovate; lateral leaflets oblong or elliptic to ovate, both surfaces gray pubescent; pedicels 5–6(–10) mm ..... 28. *A. continentalis*  
 29b. Terminal leaflets oblong-obovate; lateral leaflets rhombic-oblong or cordate, both surfaces sparsely pubescent; pedicels 8–10 mm, slender ..... 29. *A. tibetana*

**1. *Aralia dasyphylla*** Miquel, Bonplandia (Hannover) 4: 138. 1856.

头序椴木 tou xu cong mu

*Aralia chinensis* Linnaeus var. *dasyphyloides* Handel-Mazzetti; *A. dasyphyloides* (Handel-Mazzetti) J. Wen.

Shrubs or small trees, 1.5–10 m tall, andromonoecious. Branches with short, straight prickles less than 6 mm. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole longer than 30 cm, densely yellow-brown tomentose, prickly or unarmed; petiolules 0–5 mm; leaflets 7–9 per pinna, ovate to broadly oblong, 5.5–15.5 × 3–10 cm, subleathery, abaxially densely tomentose, adaxially densely pubescent, secondary veins 7–14 pairs, prominent abaxially, subconspicuous adaxially, tertiary veins conspicuous, base rounded to subcordate, margin mucronate-serrulate, apex acute to acuminate. Inflorescence a terminal panicle of heads or dense umbels, unarmed; primary axis to ca. 60 cm; secondary axes 40–65 cm, densely yellow-brown tomentose; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, oblong, ca. 3 mm; umbels 7–12-flowered; pedicels 0.5–2 cm or flowers sessile in

heads. Ovary 5-carpellate; styles 5, free. Fruit globose to subglobose, 3–4 mm in diam.; styles persistent, radiating. Fl. Aug–Oct, fr. Oct–Dec.

Forests, forest margins, along streams, roadsides and rocky slopes on hillsides and mountains; 100–1300(–1900) m. S Anhui (Qimen), Chongqing (Nanchuan, Wuxi), Fujian, Guangdong, Guangxi, Guizhou, C and SW Hubei (Dangyang, Jianshi), Hunan, Jiangxi, Sichuan, Zhejiang (Tianmu Shan) [Indonesia, Malaysia, Vietnam].

This species is circumscribed broadly by the first author to include material from Java, Sumatra, and S Peninsular Malaysia, which comprises *Aralia dasyphylla* sensu stricto, along with gatherings from China, which Wen (Cathaya 15–16: 79–82. 2004) recognized as a distinct species, *A. dasyphyloides*, based on a suite of distinguishing features including leaflet color, shape, and cuticle features, the indument and bracts of the inflorescence, and fruit shape.

**2. *Aralia bipinnata*** Blanco, Fl. Filip. 222. 1837.

台湾椴木 tai wan cong mu

*Aralia hypoleuca* C. Presl.

Shrubs or treelets, 2.7–7 m tall, andromonoecious. Branches with straight, conic prickles 4–8 mm. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of

rachis; petiole to ca. 40 cm, prickly; petiolules 2–12 mm; leaflets 5–11 per pinna, ovate to lanceolate, 3.5–15 × 1.5–6.5 cm, papery to leathery, both surfaces glabrous, abaxially glaucous, secondary veins 6–8 pairs, distinct on both surfaces, tertiary veins indistinct, base rounded to subcordate, margin crenate, apex acuminate to caudate. Inflorescence a terminal panicle of umbels, furfuraceous, unarmed; primary axis 10–40 cm; secondary axes 15–65 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, lanceolate to triangular, to ca. 4 mm; umbels 10–25-flowered; pedicels 4.5–10 mm, furfuraceous. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 3 mm in diam.; styles persistent, radiating. Fl. and fr. all year.

Dry places; (500–)1000–2100 m. Taiwan (Ali Shan) [Indonesia (Irian Jaya), Japan, Papua New Guinea, Philippines].

**3. *Aralia decaisneana*** Hance, Ann. Sci. Nat., Bot., sér. 5, 5: 215. 1866.

台湾毛櫟木 tai wan mao cong mu

Shrubs, to 3 m tall, andromonoecious. Branches with needlelike prickles. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 20–40 cm, pubescent, with sparse prickles; petiolules 0.5–3(–8) mm; leaflets 7–13 per pinna, ovate to broadly ovate or oblong-ovate, 6–15 × 3–10 cm, leathery, abaxially yellow-brown tomentose, especially on veins, adaxially pubescent or strigose, secondary veins 6–8 pairs, base rounded, rarely subcordate, margin crenate to serrulate, apex acute to acuminate. Inflorescence a terminal panicle of umbels, densely fulvous-tomentose, unarmed; primary axis 0–5 cm; secondary axes 30–50(–60) cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, linear, 0.8–1.5 cm, densely tomentose; umbels 30–50-flowered; pedicels 4.5–7 mm, tomentose. Ovary 5-carpellate; styles 5, free. Fruit globose, 3–4 mm in diam.; styles persistent, recurved. Fl. Oct–Jan, fr. Dec–Feb.

• Sparse forests or scrub fields on slopes; below 1300 m. Anhui (Huang Shan), Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi (Longnan, Xunwu), Taiwan, S and SE Yunnan (Simao, Xichou).

The first author circumscribes this species broadly to include material from both Taiwan (where the type was collected) and several provinces in E and S China. By contrast, Wen (Cathaya 15–16: 90–93. 2004) treated *Aralia decaisneana* as endemic to Taiwan, placing all populations on the mainland in her substantially revised *A. chinensis*.

**4. *Aralia searelliana*** Dunn, J. Linn. Soc., Bot. 35: 498. 1903.

粗毛櫟木 cu mao cong mu

Trees, small, to unbranched treelets, 3–10 m tall, andromonoecious. Branches densely fulvous hispid and with short, stout prickles. Leaves 2-pinnately compound, with a pair of accessory leaflets or 3–5-foliolate pinnae at each division of rachis; petiole to 100 cm, stout, densely fulvous hirsute, with short prickles; petiolules (0–)0.5–3 mm; leaflets 5–9 per pinna, ovate, 10–22 × 5–11 cm, leathery, abaxially densely fulvous hirsute, especially on veins, adaxially rugose and ± hirsute, secondary veins 8–10 pairs, abaxially conspicuous, tertiary veins

inconspicuous, base subcordate to rounded, margin serrulate, apex acuminate. Inflorescence a terminal panicle of umbels, densely fulvous hirsute-tomentose, with short, straight, conic prickles; primary axis to ca. 200 cm; secondary axes 10–60 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts caducous, lanceolate, to 2 cm; umbels 20–40-flowered; pedicels 1–8 mm, densely fulvous hispid. Ovary 5-carpellate; styles 5, free. Fruit globose to ovoid-globose, 3.5–4 × 3–3.5 mm; styles persistent, radiating. Fl. Oct, fr. Jan–Feb.

Forests, open areas, roadsides, riversides; 500–2400 m. C and SE Yunnan (Hekou, Jingdong, Pingbian) [Myanmar, Vietnam].

**5. *Aralia vietnamensis*** T. D. Ha, Novosti Sist. Vyssh. Rast. 11: 236. 1974.

偃毛櫟木 yan mao cong mu

*Aralia strigosa* C. Y. Wu ex C. B. Shang.

Shrubs or small trees, 2–12 m tall, andromonoecious. Branches with conic prickles. Leaves 2(or 3)-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole to 70 cm, fulvous strigose, with straight, conic prickles; petiolules 3–10 mm; leaflets 5–13 per pinna, ovate or to broadly ovate, 8–26 × 4–17 cm, papery to leathery, abaxially densely fulvous strigose, adaxially sparsely fulvous strigose, more densely so on veins, secondary veins 8–10 pairs, prominent abaxially, impressed adaxially, base cordate to subcordate or rounded, margin serrate, apex acute, sometimes acuminate. Inflorescence a terminal panicle of umbels, densely strigose, unarmed; primary axis to 2–5 cm; secondary axes 45–170 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts persistent, triangular, to 1 cm; umbels 10–30-flowered; pedicels 2–12 mm, pubescent. Ovary 5-carpellate; styles 5, united basally, free apically. Fruit globose to ovoid-globose, 3–4 mm in diam.; styles persistent, recurved. Fl. Sep–Dec, fr. Nov–Jan.

Hillsides, secondary forests and forest margins, roadsides; 100–1500 m. Guangdong, W Guangxi (Jingxi), Guizhou, SE Yunnan (Malipo, Xichou) [N Vietnam].

**6. *Aralia chinensis*** Linnaeus, Sp. Pl. 1: 273. 1753.

黄毛櫟木 huang mao cong mu

Shrubs or small trees, 1.5–7 m tall, andromonoecious. Branches prickly. Leaves 2-pinnately compound, with a pair of accessory leaflets or pinnae at each division of rachis; petiole 25–40 cm, pubescent and prickly; petiolules (1–)3–7(–12) mm; leaflets 5–13 per pinna, ovate to broadly ovate, 7–16.5 × 5–11.5 cm, papery to thickly papery, abaxially pale grayish green, tomentose, adaxially dark shining green, densely pubescent, secondary veins 9–11 pairs, base subcordate to rounded and often slightly oblique, margin serrate, apex acuminate to acute. Inflorescence a terminal panicle of umbels; primary axis ca. 20 cm; secondary axes 35–80 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts and bracteoles persistent, lanceolate, narrowly triangular or linear, sometimes leaflike, to 2.5 cm; umbels 20–50-flowered; pedicels 8–21 mm, densely pubescent. Ovary 5-carpellate;

styles 5, united basally, free apically. Fruit globose to ovoid-globose, 3–4.5 mm in diam.; styles persistent, recurved. Fl. Sep–Dec, fr. Nov–Jan.

• Stream banks in forests, scrub fields on slopes. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi.

7. *Aralia foliolosa* Seemann ex C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 723. 1879.

小叶榕木 xiao ye cong mu

*Aralia lantsangensis* G. Hoo.

Shrubs or treelets, 1.5–10 m tall, andromonoecious. Branches with short prickles. Leaves (2 or)3-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole glabrous, with recurved prickles; petiolules (0–)0.5–3 mm; leaflets 5–11 per pinna, ovate to elliptic, 3.5–11 × 2.5–5 cm, papery to leathery, both surfaces glabrous, secondary veins 6–9 pairs, abaxially conspicuous, reticulate veins inconspicuous on both sides, slightly impressed adaxially, base rounded to subcordate, margin serrulate, apex acuminate. Inflorescence a large, terminal panicle of umbels, glabrous, with short prickles; primary axis to ca. 100 cm; secondary axes 30–40 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts persistent, narrowly oblong, to 4.5 cm; umbels 7–15-flowered; pedicels 5–13 mm, glabrous. Ovary 5-carpellate; styles 5, united basally, free apically. Fruit globose to ovoid-globose, 3–3.5 mm in diam.; styles persistent, recurved. Fl. Sep–Mar.

Secondary forests, stream banks in forests, hillsides, roadsides; 700–1800 m. S and SW Yunnan [Bangladesh, Bhutan, India, Myanmar, Thailand, Vietnam].

8. *Aralia armata* (Wallich ex G. Don) Seemann, J. Bot. 6: 134. 1868.

野榕头 ye cong tou

*Panax armatus* Wallich ex G. Don, Gen. Hist. 3: 386. 1834; *Aralia tengyuehensis* C. Y. Wu; *A. thomsonii* Seemann ex C. B. Clarke var. *glabrescens* C. Y. Wu.

Shrubs, to 4 m tall, andromonoecious. Branches with conic, often recurved prickles shorter than 4 mm. Leaves 2- or 3-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole to 100 cm, armed; leaflets 5–9 per pinna, ovate-oblong, 4–11 × 2–5 cm, papery, both surfaces pilose, especially on veins, secondary veins 6 pairs, conspicuous on both surfaces, reticulate veins inconspicuous, cuticle striate or not, base rounded to cordate, margin serrate, apex acuminate. Inflorescence a terminal panicle of umbels, glabrous or pubescent, with recurved prickles; primary axis to ca. 40 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts caducous, linear, 1.2–2.5 mm; umbels 20–50-flowered; pedicels 1–1.5 cm, with thin prickles and stout trichomes. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 4 mm in diam., styles persistent, radiating to recurved. Fl. Aug–Oct, fr. Sep–Dec.

Forests, *Pinus* forests, forests in valleys, forest margins; below 1600 m. Guangdong, Guangxi, Guizhou, Hainan, Jiangxi (Wugong Shan), S and W Yunnan [India, Malaysia, N Myanmar, Thailand, Viet-

nam].

Wen (Cathaya 15–16: 115–117. 2004) treated *Aralia armata* to exclude material from S China (Guangdong, Guangxi, Guizhou, Hainan, and Jiangxi) and Vietnam, all of which she referred to *A. finlaysonian* (see below).

9. *Aralia spinifolia* Merrill, Philipp. J. Sci. 15: 249. 1920 [“1919”].

长刺榕木 chang ci cong mu

*Aralia nantouensis* S. S. Ying.

Shrubs, to 3 m tall, andromonoecious. Branches with dense, flat prickles 1–10 mm and slender setae 2–4 mm. Leaves 2(or 3)-pinnately compound, with a pair of accessory leaflets at each division of rachis, petioles, rachis, secondary rachis, and leaflets with scattered, slender and nearly straight prickles, recurved, conic prickles, and numerous slender, spreading setae; petiole to ca. 50 cm; petiolules (0–)0.5–3 mm; leaflets 5–9 per pinna, ovate to narrowly ovate, rarely lanceolate, 5–17 × 2.5–9 cm, papery to submembranous, secondary veins 5–8 pairs, conspicuous on both surfaces, reticulate veins conspicuous abaxially, inconspicuous adaxially, base rounded to slightly subcordate, margin serrate or biserrate (teeth ciliate), apex acuminate. Inflorescence a terminal panicle of umbels, setose, with prickles and bristles, lax; ultimate axis with a terminal umbel of bisexual flowers and 1 or 2 lateral umbels of male flowers; bracts persistent or caducous, oblong, 3–6 mm; umbels 20–50-flowered; pedicels 1.2–1.6 cm (shorter in male flowers), densely setose and furfuraceous. Ovary 5-carpellate; styles 5, united basally, free apically. Fruit globose, 5–5.5 mm in diam.; styles persistent, radiating. Fl. Aug–Oct, fr. Oct–Dec.

• Mountain slopes, open woods, forest margins, ravines, roadsides; 200–800 m. Fujian, Guangdong, Guangxi (Jinxu, Wuzhou, Yuanbao Shan), Hunan (Qianyang, Tongdao), Jiangxi (Ruijin, Xingguo, Xunwu), Taiwan, Zhejiang.

This species is used for washing boils.

10. *Aralia finlaysonian* (Wallich ex G. Don) Seemann, J. Bot. 6: 134. 1868.

虎刺榕木 hu ci cong mu

*Panax finlaysonianus* Wallich ex G. Don, Gen. Hist. 3: 386. 1834.

Shrubs, slender, sometimes vinelike, 1.5–4 m tall, andromonoecious. Branches prickly. Leaves 3- or 4-pinnately compound, with a pair of accessory leaflets or pinnae at each division of rachis; petiole 25–55 cm, glabrous or setaceous, with dense prickles; petiolules absent or ca. 15 mm; leaflets 3–5 per pinna, ovate, narrowly ovate, or lanceolate, 2.5–7.5 × 1–3.5 cm, papery to thinly papery, abaxially pale green, pubescent or pilose, rarely glabrescent, adaxially green, sparsely strigose, secondary veins 5–7 pairs, base rounded to obtuse, margin serrulate to serrate or doubly serrate, ± ciliate, apex acuminate to long acuminate. Inflorescence a terminal or axillary panicle of umbels, with short, recurved prickles; primary axis to 80 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts caducous, narrowly triangular to lanceolate; umbels 20–50-flowered; pedicels 10–25 mm, bristly, sometimes pilose or glabrescent. Ovary

5(–7)-carpellate; styles 5(–7), united basally, free apically. Fruit globose to ovoid-globose, 5–6 mm in diam.; styles persistent, recurved. Fl. Jan–Dec, fr. Jan–Dec.

Dense forests, forest margins, thickets, open thickets, streamsides, roadsides; 100–1300 m. Guangxi, Guizhou, Hainan, Yunnan [N Thailand, Vietnam].

**11. *Aralia elata*** (Miquel) Seemann, J. Bot. 6: 134. 1868.

椴木 cong mu

Shrubs or small trees, 2–5(–8) m tall, andromonoecious. Branches armed with sparse prickles. Leaves 2(or 3)-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole to ca. 50 cm, glabrous or pubescent, prickly; petiolules 3–5 mm; leaflets 5–11(–13) per pinna, broadly ovate to elliptic-ovate or narrowly ovate, 5–12(–19) × 2.5–8 cm, membranous, papery, or subleathery, abaxially glabrous or light yellow or gray pubescent, sometimes or more densely pubescent on veins, or sometimes glabrescent, adaxially sparsely strigose, secondary veins 6–10 pairs, raised abaxially, conspicuous adaxially, base cordate to subcordate or rounded, margin serrulate, apex acuminate. Inflorescence a terminal panicle of umbels, densely yellow-brown or gray pubescent, unarmed; primary axis 1–5 cm; secondary axes 20–35 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, lanceolate to subulate, 2–5 mm, sometimes ciliate; umbels 6–15-flowered; pedicels 1–10 mm, densely pubescent. Ovary 5-carpellate; styles 5, free or united to middle. Fruit globose, ca. 3–4 mm in diam.; styles persistent. Fl. Jul–Sep, fr. Sep–Dec.  $2n = 24^*$ .

Forests, forest margins, scrub fields, roadsides; near sea level to 2700 m. Anhui, Fujian, S Gansu, Guangdong, Guangxi, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Jilin, Liaoning, Shaanxi, N Shandong, Shanxi, Sichuan, Yunnan, Zhejiang [Japan, Korea, E Russia].

- 1a. Leaflets papery or subleathery, abaxially pubescent or sometimes glabrescent; pedicels 1–6 mm ..... 11a. var. *elata*
- 1b. Leaflets membranous or papery, abaxially glabrous or sparsely pubescent and echinulate on veins; pedicels 5–10 mm ..... 11b. var. *glabrescens*

**11a. *Aralia elata* var. *elata***

椴木(原变种) cong mu (yuan bian zhong)

*Dimorphanthus elatus* Miquel, Comm. Phytogr. 95. 1840; *Aralia chinensis* Linnaeus var. *elata* (Miquel) Lavallée; *A. emeiensis* Z. Y. Zhu; *A. gaoshania* Z. Y. Zhu; *A. hupehensis* G. Hoo; *A. planchoniana* Hance; *A. spinosa* Linnaeus var. *elata* (Miquel) Sargent; *A. subcapitata* G. Hoo; *A. taibaiensis* Z. Z. Wang & H. C. Zheng.

Leaflets papery or subleathery, abaxially pubescent or sometimes glabrescent. Pedicels 1–6 mm.

• Forests, forest margins, scrub fields, roadsides; near sea level to 2700 m. Anhui, Fujian, S Gansu, Guangdong, Guangxi, Guizhou, Hebei (Fuping, Xiaowutai Shan), Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi (Qin Ling), Shanxi (Yangcheng, Yuanqu), Sichuan, Yunnan,

Zhejiang.

This variety is circumscribed by the first author to include material from throughout most of China, including collections from Gansu, Hebei, Shaanxi, and Sichuan that Wen (Cathaya 15–16: 48–52. 2004) placed in *Aralia stipulata* (including the types of *A. gaoshania* and *A. taibaiensis*).

**11b. *Aralia elata* var. *glabrescens*** (Franchet & Savatier) Pojarkova in Schischkin, Fl. URSS 16: 27. 1950.

辽东椴木 liao dong cong mu

*Aralia spinosa* var. *glabrescens* Franchet & Savatier, Enum. Pl. Jap. 1: 191. 1873; *A. chinensis* var. *glabrescens* (Franchet & Savatier) C. K. Schneider; *A. chinensis* var. *mandshurica* (Ruprecht & Maximowicz) Rehder; *A. elata* var. *mandshurica* (Ruprecht & Maximowicz) J. Wen; *A. mandshurica* Ruprecht & Maximowicz; *Dimorphanthus mandshuricus* (Ruprecht & Maximowicz) Maximowicz.

Leaflets membranous or papery, abaxially glabrous or sparsely pubescent and echinulate on veins. Pedicels 5–10 mm.

Forests, scrub fields; below 1000 m. NE Hebei, Heilongjiang, Jilin (Antu, Jiaohe, Manjiang), Liaoning (Jiguanshan), N Shandong [Japan, Korea, E Russia].

The first author treats this variety to include material from Japan (including the type of *Aralia spinosa* var. *glabrescens*) and S Korea that Wen (Cathaya 15–16: 71–75. 2004) included in her concept of *A. elata* var. *elata*.

This variety is used medicinally and as a vegetable.

**12. *Aralia thomsonii*** Seemann ex C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 723. 1879.

云南椴木 yun nan cong mu

Shrubs or treelets, 1.5–10 m tall, andromonoecious. Branches softly fulvous villous, with short conic prickles 3–4 mm. Leaves 2(or 3)-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole to 20–50 cm, pubescent, prickly; petiolules 0–12 mm; leaflets 3–15 per pinna, lanceolate to ovate, 8–20 × 3–10.5 cm, papery, both surfaces densely and softly fulvous villous, secondary veins 8–10 pairs, prominent abaxially, subconspicuous adaxially, tertiary veins subconspicuous abaxially, obscure adaxially, cuticle striate, base rounded to obtuse, margin serrulate, apex acuminate, occasionally acute. Inflorescence a terminal panicle of umbels, densely pubescent, unarmed; primary axis 10–25 cm; secondary axes 40–90 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, narrowly triangular to lanceolate, to 3.5 cm; umbels 8–25-flowered; pedicels 2–11 mm, densely pubescent. Ovary 5-carpellate; styles 5, free. Fruit globose to ovoid-globose, 3.5–5 mm in diam.; styles persistent, radiating. Fl. (May–)Jun–Aug, fr. Oct–Nov.

Forests and forest margins on slopes or in valleys, roadsides, along streams; 200–2700 m. Guangxi, Yunnan [India, Malaysia, Myanmar, Thailand, Vietnam].

The first author recognizes the following two varieties based on differences in indument and pedicel length, but they were not retained by Wen (Cathaya 15–16: 128. 2004), who indicated that pedicel length

does not appear to exhibit any geographic structuring and can vary even within a single population.

- 1a. Pedicels 8–11 mm ..... 12a. var. *thomsonii*  
1b. Pedicels 2–6 mm ..... 12b. var. *brevipedicellata*

**12a. *Aralia thomsonii* var. *thomsonii***

云南榕木(原变种) yun nan cong mu (yuan bian zhong)

All parts of plants densely fulvous villous; pedicels 8–11 mm.

Forests and forest margins on slopes or in valleys; 200–2700 m. Guangxi (Lingyun), Yunnan (Fengqing, Xichou, Xishuangbanna) [India, Malaysia, Myanmar, Thailand, Vietnam].

**12b. *Aralia thomsonii* var. *brevipedicellata* K. M. Feng, Fl. Yunnan. 2: 498. 1979.**

短柄云南榕木 duan bing yun nan cong mu

Pedicels 2–6 mm.

• Forests, usually in valleys; 600–1100 m. S Yunnan (Xishuangbanna).

**13. *Aralia scaberula* G. Hoo, Acta Phytotax. Sin., Addit. 1: 173. 1965.**

糙叶榕木 cao ye cong mu

Shrubs, 1.5–2.5 m tall, andromonoecious. Branches with scattered lenticels and straight, conic prickles 4–5 mm. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 15–20 cm, glabrous, with sparse prickles; petiolules 0–5 mm; leaflets 3–5 per pinna; oblong-ovate, ovate, or rarely lanceolate, 6–12 × 3–4.5 cm, papery or subleathery, abaxially scabrous on veins and glaucous, adaxially glabrous, secondary veins 5 or 6 pairs, tertiary veins prominent, conspicuous on both surfaces, base broadly cuneate to rounded, margin serrate, apex acuminate. Inflorescence a terminal panicle of umbels, pilose, unarmed; primary axis 1.5–5 cm; secondary axes 15–25 cm; ultimate axes with a terminal umbel of bisexual flowers and numerous lateral umbels of male flowers; bracts persistent, lanceolate, 3–5 mm; umbels 15–20-flowered; pedicels 2–3 mm, pilose. Ovary 5-carpellate; styles free. Fruit globose to ellipsoid, ca. 5 × 4 mm; styles persistent, radiating. Fl. Jul–Aug, fr. Aug–Sep.

• Forests on mountain slopes; 1100–1500 m. Fujian (Chong'an), Jiangxi.

**14. *Aralia gantungensis* C. Y. Wu, Fl. Yunnan. 2: 496. 1979.**

景东榕木 jing dong cong mu

Shrubs or treelets, 1.5–12 m tall, andromonoecious. Branches densely yellow-brown tomentose, with sparse slender prickles 4–8 mm. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 10–27 cm, pubescent, unarmed or sparsely armed; petiolules 1–6 mm; leaflets 5–7 per pinna, elliptic to ovate, 2–12 × 1–5 cm, papery to subleathery, abaxially densely yellow-brown or gray tomentose, especially on veins, adaxially hirsute on veins, secondary veins 5–13 pairs, base obtuse to rounded, margin serrate to coarsely serrate, apex acute to acuminate. Inflorescence a terminal pan-

icle of umbels, densely yellow-brown tomentose, unarmed to sparsely armed at base; primary axis 15–25 cm; secondary axes to ca. 10 cm, with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, narrowly triangular, 1–2 cm; umbels 10–25-flowered; pedicels 5–8 mm, tomentose. Ovary 5-carpellate; styles 5, basally united, apically free. Fruit globose to subglobose, 3–3.5 mm in diam.; styles persistent, free arms reflexed. Fl. Jul–Nov, fr. Aug–Nov.

Mixed forests, thickets, roadsides; 1400–2900 m. C and W Yunnan (Jingdong, Longling) [Vietnam].

Wen (Novon 4: 401. 1994) recognized a second variety endemic to Myanmar: *Aralia gantungensis* var. *multinervis* J. Wen.

**15. *Aralia echinocaulis* Handel-Mazzetti, Symb. Sin. 7: 704. 1933.**

棘茎榕木 ji jing cong mu

Trees, small, or shrubs, 2–10 m tall, andromonoecious. Branches with dense, brownish, slender needlelike prickles 5–20 mm. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 30–44 cm, usually unarmed; petiolules 3(–10) mm; leaflets 5–9 per pinna, oblong-ovate to lanceolate, 6–14.5 × 2.5–8 cm, membranous to papery, both surfaces glabrous, abaxially glaucous, secondary veins 6–9 pairs, prominent on both surfaces, tertiary veins subconspicuous abaxially, slightly impressed adaxially, base rounded to obtuse, margin serrate, apex acuminate. Inflorescence a terminal panicle of umbels, glabrous, unarmed; primary axis to ca. 40 cm; secondary axes 10–20 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts narrowly triangular to lanceolate, ca. 4 mm; umbels 12–25(–30)-flowered; pedicels 1–2 cm, furfuraceous. Ovary 5-carpellate; styles 5, free. Fruit globose to subglobose, 3.5–4.5 mm in diam.; styles persistent, radiating. Fl. Jun–Aug, fr. Sep–Nov.

• Forests, roadsides, thickets, rocky cliffs; 200–1600 m. Anhui (Huang Shan), Fujian, Guangdong (Lechang, Lianshan, Yingde), Guangxi, Guizhou (Fanjing Shan), Hubei (Badong), Hunan, Jiangxi, Sichuan, Yunnan (Jingdong), Zhejiang (Changhua, Tianmu Shan).

**16. *Aralia officinalis* Z. Z. Wang in Z. Z. Wang & G. H. Hu, Biol. Study Utilization Pl. Genus *Aralia*, 40. 2001.**

陕鄂榕木 shan e cong mu

Trees 3–10 m tall, andromonoecious. Branches with dense, flat, recurved prickles. Leaves 2- or 3-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole ca. 35 cm, glabrous, somewhat prickly; petiolules 5–10 mm; leaflets 5–17 per pinna, ovate to narrowly ovate, 8–11 × 4–6 cm, papery to subleathery, abaxially glaucous, adaxially green, both surfaces glabrous, secondary veins 11–12 pairs, base subcordate, slightly oblique, margin mucronate, apex long acuminate. Inflorescence a terminal panicle of umbels, armed; primary axis to 50 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts lanceolate to narrowly ovate, 12–14 mm; umbels 17–45-flowered; pedicels 6–8 mm, pubescent. Ovary 5-carpellate; styles 5, basally united, apically free. Fruit globose, 4–5 mm in diam.;

styles persistent, free arms recurved. Fl. Aug–Sep, fr. Sep–Oct.

- Thickets, mountain valleys. Chongqing, SE Shaanxi, Sichuan.

**17. *Aralia undulata*** Handel-Mazzetti, Symb. Sin. 7: 705. 1933.

波缘榕木 bo yuan cong mu

*Aralia undulata* var. *cirrhifolia* Z. Z. Wang; *A. undulata* var. *nudifolia* Z. Z. Wang.

Shrubs or trees, 1–10 m tall, hermaphroditic (?or andromonoecious). Branches with sparse, short, conic prickles. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 20–35 cm, glabrous, sparsely shortly prickly; petiolules (1–)3–10 mm; leaflets 5–15 per pinna, ovate or ovate-lanceolate to broadly ovate, 7–14 × 3–7 cm, papery to nearly membranous, both surfaces glabrous, abaxially glaucous, secondary veins 7–10 pairs, tertiary veins distinct, base rounded to obtuse or subcordate, margin undulate-mucronate to entire, apex acuminate or caudate. Inflorescence a terminal panicle of umbels, sparsely lenticellate, unarmed; primary axis 5–20(–30) cm; secondary axes 25–55 cm; bracts persistent or sometimes caducous, lanceolate to narrowly triangular, 3–10 mm, ciliate; umbels 10–25-flowered; pedicels 3–9 mm, slightly furfuraceous. Ovary 5-carpellate; style 5, free. Fruit globose, 3.5–4 mm in diam.; styles persistent, radiating. Fl. Jun–Aug, fr. Oct.

Dense forests, sparse woods; 500–2500 m. Chongqing (Wuxi), Guangdong, Guangxi (Jiuwan Dashan, Longsheng), Hubei, Hunan (Chengbu, Xinning), Jiangxi, Sichuan (Huili, Leibo), Yunnan [N Vietnam].

**18. *Aralia debilis*** J. Wen, Novon 4: 400. 1994.

秀丽榕木 xiu li cong mu

*Aralia elegans* C. N. Ho, Acta Phytotax. Sin. 2: 77. 1952, not Linden ex Decaisne & Planchon (1854).

Shrubs, 1–2 m tall, andromonoecious. Branches with sparse, slender, conic prickles. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole 10–15 cm, glabrous, prickly, sometimes sparsely so; petiolules 5–10 mm; leaflets 2–8 per pinna, ovate to lanceolate, 3–6 × 1.2–3 cm, membranous, both surfaces glabrous, abaxially glaucous, secondary veins 4–7 pairs, conspicuous on both surfaces, tertiary veins inconspicuous, base rounded, margin coarsely serrate, apex acute to acuminate. Inflorescence a terminal panicle of umbels, glabrous, unarmed; primary axes longer than 35 cm; secondary axes to ca. 10 cm; ultimate axes with a terminal umbel of bisexual flowers and several lateral umbels of male flowers; bracts persistent, narrowly triangular, to 9 mm; umbels 8–15-flowered; pedicels 3–6 mm, pilose, slightly furfuraceous. Ovary 5-carpellate; styles 5, free. Fruit globose to ovoid-globose, 4–4.5 × 3.5–4 mm; styles persistent, radiating. Fl. Jun–Jul.

- Valleys, thickets, 800–1000 m. Guangdong, Guangxi.

**19. *Aralia stipulata*** Franchet, J. Bot. (Morot) 10: 304. 1896.

披针叶榕木 pi zhen ye cong mu

*Eleutherococcus mairei* H. Léveillé.

Shrubs or small trees, 2–10 m tall, andromonoecious. Branches nearly unarmed, with swollen, conic prickles at base. Leaves 2-pinnately compound, with a pair of accessory leaflets at each division of rachis; petiole to ca. 15 cm, glabrous, unarmed; petiolules to 4 mm; leaflets 3–11 per pinna, ovate to narrowly ovate, 5–12 × 2.5–8 cm, papery to subleathery, both surfaces glabrous, abaxially rarely pilose on veins, secondary veins 6 or 7 pairs, base rounded, margin serrate, apex acute to acuminate. Inflorescence a terminal panicle of umbels, unarmed; primary axis to 45 cm; secondary axes 30–45 cm; ultimate axes with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; bracts persistent, lanceolate, 8–15 mm; umbels 20–40-flowered; pedicels 8–12 mm, pubescent. Ovary 5-carpellate; styles 5, united basally, free apically. Fruit globose, ca. 3 mm in diam.; styles persistent, recurved. Fl. Jun–Aug.

- Forests; ca. 3000 m. Yunnan (Eryuan, Jingdong, Weixi).

Wen (Cathaya 15–16: 48–52. 2004) circumscribed this species more broadly to encompass material from Gansu, Hubei, Shaanxi, and Sichuan (including the types of *Aralia gaoshania* and *A. taibaiensis*; see *A. elata* var. *elata* in the present treatment).

**20. *Aralia apioides*** Handel-Mazzetti, Symb. Sin. 7: 701. 1933.

芹叶龙眼独活 qin ye long yan du huo

Herbs, perennial, 1–1.5 m tall, with stout, horizontal rhizome. Leaves 2- or 3-pinnately compound (upper leaves often simple); petiole 2–15 cm; petiolules 1–5 mm; leaflets 3–9 per pinna, broadly ovate, 1–3.5 × 1–2 cm, membranous, abaxially slightly pilose to glabrescent on veins, adaxially glabrous to slightly pilose-scabrid, secondary veins 4 or 5 pairs, subconspicuous, tertiary veins subconspicuous abaxially, base cordate to obtuse, margin deeply incised and biserrate (teeth setose, acuminate), apex of terminal leaflets long acuminate, lateral leaflets often obtuse. Inflorescence a terminal or axillary corymb of umbels, sparsely pilose to glabrescent; primary axis to 5 cm; bracts linear-lanceolate, small; umbels racemosely arranged, 5–12-flowered; pedicels 1–4 mm. Ovary (3–)5-carpellate; styles (3–)5, free. Fruit subglobose, ca. 5 mm in diam.; styles persistent, united to middle, apically free, recurved. Fl. Jun, fr. Aug.

- Grasslands, forests; 3000–3600 m. C Sichuan (Shimian), NW Yunnan (Dêqên, Zhongdian).

**21. *Aralia atropurpurea*** Franchet, J. Bot. (Morot) 10: 301. 1896.

浓紫龙眼独活 nong zi long yan du huo

*Panax atropurpureus* (Franchet) Handel-Mazzetti.

Herbs, perennial, 1–1.5 m tall, with elongate rhizome. Leaves 1- or 2-pinnately compound; petiole 1.5–4 cm; petiolules 5–25 mm (terminal one to 4 cm); leaflets 3–7 per pinna, ovate, 3–8 × 2–3 cm, membranous, both surfaces sparsely setose-scabrous, secondary veins 5–7 pairs, subconspicuous, tertiary veins inconspicuous, base broadly cuneate, margin biserrate, apex long acuminate. Inflorescence a terminal corymb of

umbels, glabrous to slightly scabrid; primary axis to 5 cm; secondary axes to 18 cm; bracts linear, 5–10 mm; umbels 7–10-flowered; pedicels 5–10 mm, scabrid. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 3.5 mm in diam.; styles persistent, recurved. Fl. Jun–Jul, fr. Aug–Sep.

• Among scattered trees, grasslands on slopes or roadsides; 2700–3300 m. Sichuan, Xizang (Bomi), Yunnan (Dêqên).

**22. *Aralia yunnanensis*** Franchet, J. Bot. (Morot) 10: 303. 1896.

云南龙眼独活 yun nan long yan du huo

*Aralia fargesii* Franchet var. *yunnanensis* H. L. Li.

Herbs, perennial, to ca. 1 m tall, with stout, elongate rhizome. Leaves 2-pinnately compound; petiole 3–15 cm; petiolules 9–12 mm (terminal one to 3 cm), glabrous to slightly pilose; leaflets 3–5 per pinna, ovate to narrowly ovate, (2–)3–8 × 1.3–4.5 cm, papery, sparsely white strigose on veins, truncate to subcordate, margin serrate, apex acuminate. Inflorescences terminal or axillary corymb of umbels, pilose; primary axis to 5 cm, bracts linear-lanceolate, 3–7 mm; umbels 10–30-flowered; pedicels 4–8 mm. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 3 mm in diam.; styles persistent, radiating. Fl. Jun–Aug, fr. Aug–Oct.

• Forests or scrub fields on slopes; 1900–2800 m. SW Sichuan (Muli), C and NW Yunnan (Dêqên, Heqing, Songming).

**23. *Aralia henryi*** Harms, Bot. Jahrb. Syst. 23: 12. 1896.

柔毛龙眼独活 rou mao long yan du huo

*Aralia houheensis* W. X. Wang et al.; *A. pilosa* Franchet.

Herbs, perennial, 40–100 cm tall, with short rhizome. Leaves 2-ternately to 2-pinnately compound; petiole 3–10 cm, puberulous to glabrous; petiolules 3–5 mm (terminal one to 2 cm); leaflets 3 per rachis, oblong-ovate, 3.5–10 × 2–6 cm, membranous, both surfaces villous on veins, secondary veins 6–8 pairs, subconspicuous, tertiary veins inconspicuous, base subcordate, margin crenate, apex caudate. Inflorescence a terminal corymb of umbels, villous; primary axis to 5 cm; bracts, linear, 2–7 mm; umbels 3–10-flowered; pedicels 2–3 mm, filiform. Ovary (3–)5-carpellate; styles (3–)5, free. Fruit subglobose, ca. 3 mm. Fl. Jul–Aug, fr. Sep–Nov.

• Forests; 1500–2300 m. Anhui (Huang Shan), Chongqing (Jinfo Shan), Hubei (Xingshan), Shaanxi (Yangxian), Sichuan (Leibo).

**24. *Aralia fargesii*** Franchet, J. Bot. (Morot) 10: 302. 1896.

龙眼独活 long yan du huo

Herbs, perennial, to ca. 1 m tall, with stout, elongate rhizome. Leaves 1–3-pinnately compound (upper ones 1- or 2-pinnate); petiole ca. 15 cm; petiolules to 1.2 cm (terminal one to 3 cm), glabrous or sparsely pilose; leaflets 3–5 per pinna, broadly ovate or oblong-ovate, 8–15 × 5–7 cm, membranous, both surfaces scabrous, pubescent on veins abaxially, secondary veins 5 or 6 pairs, conspicuous on both surfaces, tertiary veins conspicuous only abaxially, base cordate, margin serrate, apex acuminate. Inflorescence a few branched terminal or axillary corymb of umbels, glabrous or sparsely pilose; bracts lanceolate,

2–3 mm; umbels racemously arranged, 10–20-flowered; pedicels 2–5 mm, glabrous or slightly scabrid. Ovary 5-carpellate; styles 5, basally united, apically free. Fruit subglobose, ca. 5 mm in diam.; styles persistent, free arms radiating. Fl. Jul–Aug, fr. Oct–Nov.

• Forests, stream banks; 1800–2700 m. Shaanxi (Taibai Shan), Sichuan, Yunnan (Heqing, Kunming, Songming).

This species is used medicinally.

**25. *Aralia melanocarpa*** (H. Léveillé) Lauener, Notes Roy. Bot. Gard. Edinburgh 32: 94. 1972.

黑果土当归 hei guo tu dang gui

*Eleutherococcus melanocarpus* H. Léveillé, Bull. Acad. Int. Géogr. Bot. 24: 282. 1914; *Aralia dumetorum* Handel-Mazzetti.

Herbs, perennial, to 1.5 m tall, with elongate rhizome. Leaves 1- or 2-pinnately compound; petiole ca. 4 cm, glabrous; petiolules 8–20 mm (terminal one to 4.5 cm); leaflets 3–5 per pinna, broadly ovate, 2–4 × 2–4.5 cm, membranous, sparsely white setose on veins, secondary veins 5–7 pairs, conspicuous on both surfaces, tertiary veins inconspicuous, base cordate, margin biserrate, apex long acuminate. Inflorescence a sparsely branched terminal panicle of umbels; primary axis longer than 10 cm, always with a single axillary umbel at base; bracts lanceolate, ca. 5 mm; umbels 12–18-flowered; pedicels to 7 mm. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 7 mm in diam. Fl. Jul.

• Forest margins, scrub fields; ca. 2600 m. Guizhou (Weining), Sichuan (Hongxi, Maowen), NE Yunnan.

**26. *Aralia kansuensis*** G. Hoo, Acta Phytotax. Sin., Addit. 1: 174. 1965.

甘肃土当归 gan su tu dang gui

Herbs, perennial, to ca. 50 cm tall, with elongate rhizome. Leaves 2- or 3-pinnately compound; petiole 4–12 cm, sparsely pubescent; petiolules 0–10 mm (terminal one 5–15 mm), densely villous; leaflets 3–9 per pinna, ovate to oblong-ovate, 3–5 × 1–2.5 cm, membranous, both surfaces setose, more densely so on veins, secondary veins 5–7 pairs, conspicuous abaxially, tertiary veins inconspicuous or subconspicuous abaxially, base rounded to cordate, margin biserrate, apex long acuminate. Inflorescence a compact panicle of umbels; primary axis longer than 10 cm; secondary axes 15–20 cm; bracts linear-lanceolate to ovate-lanceolate, ca. 1.5 cm; umbels corymbosely arranged, rarely racemously arranged, 8–12-flowered; pedicels 2–5 mm, villous. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 3 mm in diam.; styles persistent. Fl. Jun.

• Grasslands or scrub fields on slopes; ca. 3100 m. S Gansu (Xihe).

**27. *Aralia cordata*** Thunberg, Fl. Jap. 127. 1784.

食用土当归 shi yong tu dang gui

*Aralia taiwaniana* Y. C. Liu & F. Y. Lu.

Herbs, perennial, 0.5–3 m tall. Stem stout, with elongate,



cylindric rhizome. Leaves 2- or 3-pinnately compound; petiole 15–30 cm, glabrous or sparsely pubescent; petiolules to 2.5 cm (terminal one to 5 cm); leaflets 3–5 per pinna, narrowly ovate to oblong-ovate, 4–15 × 3–9 cm, membranous to subleathery, abaxially sparsely pubescent on veins, adaxially glabrous, secondary veins 6–8 pairs, tertiary veins distinct abaxially, inconspicuous adaxially, base rounded to cordate, margin coarsely serrate, apex acute. Inflorescence a lax terminal or axillary few branched panicle of umbels; primary axis longer than 10 cm; bracts linear, 3–5 mm; umbels racemosely arranged, few- to many flowered; pedicels 1–1.2 cm, filiform, pubescent. Ovary 5-carpellate; styles 5, free. Fruit globose, ca. 3 mm in diam.; styles persistent, ca. 2 mm.  $2n = 24^*$ ,  $48^*$ .

• Shaded places in forests, grasslands on slopes; 1300–1600 m. Anhui (Huang Shan), Fujian (Chong'an), Guangxi (Longsheng, Ziyuan), Hubei (Enshi, Xuan'en), Jiangxi, Taiwan, Zhejiang.

This species is used medicinally and as a vegetable.

**28. *Aralia continentalis*** Kitagawa, Bot. Mag. (Tokyo) 49: 228. 1935.

东北土当归 dong bei tu dang gui

*Aralia cordata* Thunberg var. *continentalis* (Kitagawa) Y. C. Zhu.

Herbs, perennial, to 1 m tall, with stout rhizome. Leaves 2- or 3-pinnately compound; petiole 11–25 cm, sparsely gray pilose; petiolules 0–10 mm; leaflets 3–7 per pinna, heteromorphic, lateral ones oblong or elliptic to ovate, terminal ones obovate to elliptic-obovate, 5–15 × 3–9 cm, membranous, both surfaces gray pubescent, abaxially more densely so, base cuneate to cordate, margin irregularly serrate or biserrate, apex acute to acuminate. Inflorescence a compact terminal or axillary panicle of umbels, gray pubescent; hairy; bracts ovate, 1.5–2 mm, membranous, ciliate; umbels many flowered; pedicels 5–6(–10) mm, pubescent. Ovary 5-carpellate; styles 5, basally united, apically free. Fruit globose, ca. 3 mm in diam.; styles persistent, free arms recurved. Fl. Jul–Aug, fr. Aug–Sep.

Forests and grasslands on slopes; 800–3200 m. Anhui, Hebei (Fuping, Tangxian, Xiaowutai Shan), Henan (Lushi), Jilin (Changbai Shan, Huadian, Tonghua), Liaoning (Wulongbei), Shaanxi (Fuping), Sichuan, Xizang (Gyirong, Yadong) [Korea, Russia].

**29. *Aralia tibetana*** G. Hoo, Acta Phytotax. Sin., Addit. 1: 175. 1965.

西藏土当归 xi zang tu dang gui

Herbs, perennial. Leaves 2-pinnately compound; petiole 7–16 cm, glabrous; petiolules 3–7 mm (terminal one to 3 cm), pubescent; leaflets 3–5 per pinna, heteromorphic, terminal ones oblong-ovate, 5.5–7.5 × 2.2–4 cm, lateral ones rhombic-oblong or cordate, 3–6.5 × 1.4–2.8 cm, membranous or papery, both surfaces sparsely pubescent, secondary veins 5–8 pairs, tertiary veins conspicuous abaxially, base rounded to subcordate, margin serrulate, apex long acuminate. Inflorescence a terminal panicle of umbels; primary axis longer than 10 cm; secondary axes 2–6 cm, slender, pubescent, 2–6 verticillately arranged near middle of primary axis; bracts conic, densely pubescent; um-

bels 1–3 per secondary axis, many flowered; pedicels 8–10 mm, densely pubescent. Ovary 5-carpellate; styles 5, basally united, apically free. Fruit ovoid. Fl. Aug, fr. Sep.

• Forests, scrub fields; 3200–3500 m. Xizang.

