

## 12. BRASSAIOPSIS Decaisne & Planchon, Rev. Hort. (Paris), sér. 4, 3: 106. 1854.

罗伞属 *luo san shu*

*Pseudobrassaiopsis* R. N. Banerjee.

Trees or shrubs, hermaphroditic or andromonoecious, armed or occasionally unarmed. Leaves simple and unlobed, palmately lobed, or palmately compound, margins entire or more often serrate; stipules united with petiole at base. Inflorescence a terminal panicle or raceme of umbels; bracts small or absent, often caducous. Pedicels not articulate below ovary. Calyx rim 5-toothed. Petals 5, valvate. Ovary 2(–5)-carpellate; styles as many as carpels, united into a persistent column. Fruit a drupe, globose to ellipsoid or obloid, sometimes slightly compressed laterally. Seeds 1 (by abortion) or 2(–5), endosperm ruminant or uniform.

About 45 species: S and SE Asia; 24 species (ten endemic) in S and SW China.

“*Euaraliopsis*” (Hutchinson, Gen. Fl. Pl. 2: 80. 1967) belongs here but was not validly published because the apparent replaced synonym, “*Araliopsis*” (Kurz, Rep. Veg. Andaman Isl. 39. 1870, not *Araliopsis* Engler, 1896), was itself not validly published because Kurz merely cited “*Araliopsis andamanica* Kurz” in the synonymy of *Brassaiopsis palmata* (Roxburgh) Kurz. Consequently the following species names, which belong with the corresponding *Brassaiopsis* names below, are not validly published either: “*E. ciliata*,” “*E. dumicola*,” “*E. fatisoides*” (together with “*E. palmipes*”), “*E. ferruginea*” (together with “*E. emeiensis*”), “*E. ficifolia*,” “*E. hainla*,” “*E. hispida*,” and “*E. moumingensis*.”

1a. Leaves palmately compound.

2a. Inflorescence with 2–5 umbels, primary axis less than 15 cm.

3a. Leaflets abaxially glaucous; ovary 3- or 4-carpellate ..... 21. *B. kwangsiensis*

3b. Leaflets abaxially not glaucous; ovary 2-carpellate.

4a. Leaflets 3(or 4); inflorescence terminal ..... 22. *B. tripteris*

4b. Leaflets 3(–)5–9; inflorescence axillary.

5a. Leaflets narrowly lanceolate, 13–24 × 1.5–2.5 cm, sessile or subsessile (petiolules to 0.5 cm), adaxially glabrous, secondary veins 12–21 pairs ..... 23. *B. angustifolia*

5b. Leaflets ovate or elliptic-lanceolate, 8–20 × 3–8 cm, petiolules 0.5–3.5 cm, adaxially sparsely shortly setose, secondary veins 6–8 pairs ..... 24. *B. gracilis*

2b. Inflorescence with more than 10 umbels, primary axis at least 30 cm.

6a. Petiolules stout, 2.5–5 mm in diam., leaflets densely brown to ferruginous stellate pubescent; inflorescence with short bristles ..... 16. *B. chengkangensis*

6b. Petiolules slender, 1–1.5 mm in diam.; leaflets and inflorescence ferruginous tomentose or glabrescent.

7a. Ovary (3 or)4- or 5-carpellate; inflorescence with persistent spiny bracts ..... 17. *B. producta*

7b. Ovary 2-carpellate; inflorescence lacking spiny bracts.

8a. Petiolules very short, to 1 cm; leaflets narrowly elliptic to linear ..... 18. *B. shweliensis*

8b. Petiolules (1.5–)2–10 cm; leaflets oblong to ovate-elliptic or broadly linear.

9a. Leaflets 15–35 × 6–15 cm, margin entire or sparsely serrulate; fruit didymo-globose or globose ..... 19. *B. glomerulata*

9b. Leaflets 10–15 × 3.5–4.5 cm, margin sharply serrate; fruit ellipsoid-globose ..... 20. *B. quercifolia*

1b. Leaves simple, palmately lobed or divided, lobes (if present) joined at base by continuous tissue.

10a. Umbels generally 2–5(or 6) per inflorescence; branches generally without prickles; shrubs.

11a. Inflorescence axillary; leaves deeply 3- or 4-lobed, lobes elliptic ..... 15. *B. moumingensis*

11b. Inflorescence terminal (rarely also lateral); leaves entire or 2- or 3(–5)-lobed.

12a. Leaves entire or 2- or 3(–5)-lobed, blade and lobes ovate-lanceolate to narrowly lanceolate; inflorescence ferruginous pubescent (eventually glabrescent) ..... 14. *B. ferruginea*

12b. Leaves 3(–5)-lobed, inflorescence glabrous or bristly, lacking ferruginous pubescence.

13a. Leaf base deeply cordate, margin weakly serrate, teeth triangular, 4–11 mm apart; inflorescence glabrous ..... 12. *B. ficifolia*

13b. Leaf base truncate to very shallowly cordate, margin ciliate-serrulate, teeth linear, curved, spine-tipped, 2–4 mm apart; inflorescence bristly ..... 13. *B. triloba*

10b. Umbels (5 or)6 to many per inflorescence; branches prickly; trees or shrubs.

14a. Inflorescence unarmed.

15a. Leaves not divided or lobed, oblong-elliptic or elliptic ..... 7. *B. simplicifolia*

15b. Leaves divided, 3–11-lobed.

16a. Leaves 3–7-lobed, bases of lobes only slightly narrowed if at all.

17a. Ovary 5-carpellate, leaves (5–)7-lobed; mature fruit 10.5–14 mm high ..... 10. *B. grushvitzkyi*

17b. Ovary 2-carpellate, leaves 3–5-lobed; mature fruit 7–9 mm high ..... 11. *B. stellata*

16b. Leaves 7–11-lobed, bases of lobes distinctly narrowed (sometimes forming a

- pseudo-petiolule).
- 18a. Pedicels slender, (8–)10–30 mm, bracts subtending flowers 1–2 mm, caducous;  
inflorescence terminal or pseudo-lateral ..... 8. *B. fatsioides*
- 18b. Pedicels stout, 5–8(–12) mm, bracts subtending flowers 4–10 mm, stiff, persistent;  
inflorescence pseudo-lateral, borne on woody stems below leaves ..... 9. *B. dumicola*
- 14b. Inflorescence prickly (sometimes sparsely so).
- 19a. Lobes of leaves divided less than 1/2 way to base, broadly ovate-triangular to nearly rounded,  
at most 1.5 × as long as distance between sinuses ..... 1. *B. hainla*
- 19b. Lobes divided at least 1/2 way to base, elliptic to ovate or obovate (often narrowly so), 2–3  
× as long as distance between sinuses.
- 20a. Inflorescence lateral, borne below leaves.
- 21a. Leaves 3–5-lobed, margins irregularly serrate, larger teeth 2–2.5 mm; primary axis  
of inflorescence not more than 35 cm ..... 5. *B. tibetana*
- 21b. Leaves (5–)7–9(–11)-lobed, margins ciliate-serrulate, teeth 1–1.5 mm; primary  
axis of inflorescence (20–)30–150 cm ..... 6. *B. ciliata*
- 20b. Inflorescence terminal, borne above leaves.
- 22a. Leaves 5–7-lobed ..... 2. *B. pseudoficifolia*
- 22b. Leaves (5–)7–11-lobed.
- 23a. Petiole sparsely prickly or unarmed; leaves papery to membranous, margins  
serrulate-ciliate, with 4–6 teeth per cm ..... 3. *B. bodinieri*
- 23b. Petiole densely prickly, leaves subleathery, margins spinose-serrulate, with  
2–3 teeth per cm ..... 4. *B. hispida*

**1. *Brassaiopsis hainla*** (Buchanan-Hamilton) Seemann, J. Bot. 2: 291. 1864.

浅裂罗伞 qian lie luo san

*Hedera hainla* Buchanan-Hamilton in D. Don, Prodr. Fl. Nepal. 187. 1825; *Brassaiopsis polyacantha* (Wallich) R. N. Banerjee; *H. polyacantha* Wallich; *Pseudobrassaiopsis hainla* (Buchanan-Hamilton) R. N. Banerjee; *P. polyacantha* (Wallich) R. N. Banerjee.

Trees, to 15 m tall, hermaphroditic. Branches with conic prickles. Leaves simple, 5–7-lobed; petiole 15–25 cm, tomentose at first, glabrescent; stipules small or absent, ovate to ovate-deltoid; blade 17–35 cm wide, papery, lobes divided less than 1/2 way to base, broadly ovate-triangular to nearly rounded, abaxially stellate pubescent, glabrescent, adaxially tomentose, veins conspicuous on both surfaces, base broadly convex, margin sharply dentate, apex acuminate. Inflorescence terminal, apparently erect to ascending, densely tomentose, glabrescent after anthesis, with scattered prickles; primary axis to ca. 30 cm; secondary axes to 10(–13) cm; peduncles 1.5–2 cm; umbels 2.5–3.5 cm in diam.; pedicels 0.8–1 cm. Ovary 2-carpellate. Fruit subglobose, ca. 8 mm in diam.; styles persistent, ca. 2.5 mm. Fl. Dec–Mar, fr. Jun–Aug. *2n* = 48.

Forests in valleys; 1300–2100 m. Yunnan [Bhutan, NE India, Myanmar, Nepal, Thailand].

**2. *Brassaiopsis pseudoficifolia*** Lowry & C. B. Shang, Acta Phytotax. Sin. 44: 641. 2006.

假榕叶罗伞 jia rong ye luo san

Trees, to 15(–25) m tall, apparently hermaphroditic. Branches prickly. Leaves simple, 5–7-lobed; petiole (11–)15–45 cm, unarmed (rarely with few small prickles just below blade); blade nearly orbicular, 14–26 × 18–37 cm, papery; lobes divided 2/3–3/4 way to base, elliptic to ovate, both surfaces glabrous, veins visible on both surfaces, slightly raised, base cor-

date, often deeply so, margin serrate, apex acute to acuminate. Inflorescence terminal, erect, ferruginous to light brown stellate pubescent, with few small prickles; primary axis ca. 15 cm, slender; peduncles 7–9, 3.5–6 cm; umbels 2.5–4 cm in diam.; pedicels 5–6 mm just before flowering, expanding in fruit to 1.1–1.5 cm. Ovary 2-carpellate. Fruit globose, 8–10 mm in diam.; styles persistent, 2–3 mm.

• Moist shaded forests; 1700–2500 m. SW Yunnan.

**3. *Brassaiopsis bodinieri*** (H. Léveillé) J. Wen & Lowry, Adansonia, sér. 3, 28: 182. 2006.

直序罗伞 zhi xu luo san

*Acanthopanax bodinieri* H. Léveillé, Bull. Acad. Int. Géogr. Bot. 24: 143. 1914.

Shrubs to small trees, to 5 m tall, andromonoecious or hermaphroditic. Branches prickly. Leaves simple, (7–)9–11-lobed; petiole (18–)15–35 cm, with small scattered prickles; blade (18–)25–40 cm wide, papery to membranous; lobes elliptic to narrowly obovate, (7–)9–22 cm, adaxially glabrous or with sparse short setae, base truncate to cordate, margin serrulate, teeth narrowly triangular, apex acuminate. Inflorescence terminal, erect, with dense prickles to 6 mm and setose trichomes to 2.5 mm; primary axis 10–25 cm; secondary axes (5–)8–25 cm, with a terminal umbel of bisexual flowers and usually 1–3(or 4) umbels of male flowers; peduncles if male umbels 1–2 cm; umbels 0.8–1 cm in diam.; pedicels (8–)10–18 mm (shorter in male flowers), finely brown to ferruginous stellate, glabrescent. Ovary 2-carpellate. Fruit ellipsoid, 9–12 × 5–8 mm; styles persistent, 1.5–2.5 mm. Fl. Oct–Dec, fr. Jan–Feb.

Moist shaded forests; 500–2200 m. SW Guizhou, SW Yunnan [N Vietnam].

**4. *Brassaiopsis hispida*** Seemann, J. Bot. 2: 292. 1864.

粗毛罗伞 cu mao luo san

*Pseudobrassaiopsis hispida* (Seemann) R. N. Banerjee.

Shrubs, to 5 m tall, andromonoecious. Branches with dense, compressed prickles 3–6 mm, ferruginous stellate. Leaves simple, 9–11-lobed; petiole 20–40 cm, densely prickly; blade broadly orbicular, 20–36 cm wide, leathery, lobes divided 3/4–4/5 way to base, oblong-lanceolate to narrowly ovate, both surfaces glabrous, or abaxially sparsely hispidulous, base deeply cordate, margin spinose-serrulate, teeth ca. 2 mm, with a stiff, sharp tip, apex acuminate. Inflorescence terminal, probably erect, with dense prickles and brown stellate indumentum; primary axis ca. 30 cm; secondary axes 15(–20) cm, with a terminal umbel of bisexual flowers and 1 to several lateral umbels of male flowers; peduncles 5–7 cm; umbels 3–5 cm in diam.; pedicels 1–1.5 cm, densely ferruginous tomentose. Ovary 2-carpellate. Fruit globose to obloid, slightly compressed, 6–7 × 8–9 mm; styles persistent, ca. 2 mm; pedicels in fruit ca. 7 cm. Fl. Jun–Dec, fr. Jan–Feb.

Dense forests in valleys; 1400–2300 m. Xizang, Yunnan [Bhutan, India (Darjeeling, Sikkim), Myanmar, Vietnam].

**5. *Brassaiopsis tibetana*** C. B. Shang, Acta Phytotax. Sin. 18: 91. 1980 [*"tibetanus"*].

西藏罗伞 xi zang luo san

*Brassaiopsis zhangmuensis* Y. R. Li.

Trees, to ca. 10 m tall, hermaphroditic. Branches with conic prickles 2–3 mm, densely ferruginous tomentose when young. Leaves simple, deeply 3–5-lobed; petiole 35–45 cm, unarmed, tomentose at first, later glabrescent; blade broadly orbicular, 15–26 × 18–30 cm, papery; lobes divided to 4/5 way to base, basal lobes oblique-oblong, sometimes slightly shallow, median and terminal lobes obovate-oblong to obovate-lanceolate, both surfaces densely yellowish gray stellate pubescent when young, later glabrescent, abaxially sparsely stellate pubescent on veins, adaxially glabrous, base slightly narrowed, margin sparsely irregularly serrate, apex acuminate. Inflorescence lateral, apparently ascending (perhaps pendent in fruit), sparsely stellate, with scattered prickles; primary axis to 35 cm; secondary axes to 8 cm; peduncles 1–2.5 cm; umbels 0.8–1.6 cm in diam.; pedicels 2–5 mm. Ovary 2-carpellate. Fruit globose, ca. 3 mm in diam.; styles persistent, ca. 2 mm; pedicels in fruit 4–6 mm, pubescent. Fr. Oct.

• Forests; ca. 2200 m. S Xizang (Nyalam).

**6. *Brassaiopsis ciliata*** Dunn, J. Linn. Soc., Bot. 35: 499. 1903.

纤齿罗伞 xian chi luo san

Shrubs, to ca. 4 m tall, hermaphroditic. Branches densely tomentose, with scattered compressed prickles. Leaves simple, (5–)7–9(–11)-lobed; petiole 20–35 cm, unarmed or rarely with few prickles distally; blade ca. 30 cm wide, papery to membranous; lobes divided to 4/5 way to base, lobes elliptic to oblong, 15–20 cm, both surfaces sparsely bristly on veins, base densely cordate, margin ciliate-serrulate, teeth not sharply tipped, apex acuminate. Inflorescence lateral, pendent, with sparse to dense, short prickles; primary axis (20–)30–150 cm; secondary axes to

ca. 18 cm; peduncles 2–5 cm; umbels 3–5 cm in diam.; pedicels 1–1.5 cm, densely ferruginous stellate. Ovary 2-carpellate. Fruit black, ovoid-globose, sometimes slightly compressed, 7–8 mm in diam.; styles persistent, ca. 1.5 mm; pedicels in fruit to 3 cm. Fl. Aug–Nov, fr. Feb–Mar.

Forests in valleys, sunny mountain slopes; 300–2200 m. SW Guizhou, Sichuan, SE Yunnan [N Vietnam].

**7. *Brassaiopsis simplicifolia*** C. B. Clarke in J. D. Hooker, Fl. Brit. India 2: 735. 1879.

单叶罗伞 dan ye luo san

Trees, to ca. 10 m tall, andromonoecious. Branches with conic prickles and densely ferruginous tomentose at first, later glabrescent. Leaves simple, unlobed; petiole 2.5–8 cm; stipules united at base of petiole, apically free, slightly prominent; blade oblong-elliptic to elliptic or narrowly ovate, 9–30 × 4.5–10 cm, papery, abaxially sparsely pubescent on veins, adaxially at first densely ferruginous tomentose, later glabrous, veins slightly raised on both surfaces, base broadly cuneate to nearly rounded, margin sharply serrate, apex acute to acuminate. Inflorescence terminal, erect, prickly, at first densely ferruginous tomentose, then subglabrous; primary axis 15–30 cm; secondary axes to 13 cm, with a terminal umbel of bisexual flowers and 1 or 2(or 3) lateral umbels of male flowers; peduncles 2–7 cm; umbels ca. 4 cm in diam.; pedicels 1.2–2 cm. Ovary 2-carpellate. Fruit (immature) subglobose, ca. 4 mm in diam.

Evergreen broad-leaved forests or coniferous broad-leaved mixed forests; 800–3000 m. S Xizang [India].

**8. *Brassaiopsis fatsioides*** Harms in Sargent, Pl. Wilson. 2: 556. 1916.

盘叶罗伞 pan ye luo san

*Brassaiopsis palmipes* Forrest ex W. W. Smith; *B. trevesioides* W. W. Smith.

Trees, to ca. 10 m tall, andromonoecious. Branches prickly. Leaves simple, 7–11-lobed; petiole 10–40 cm, subglabrous or sparsely puberulous near apex, unarmed; blade orbicular, to ca. 30 cm wide, membranous or papery; lobes oblanceolate, oblong-lanceolate, or ovate-oblong, divided 2/3–3/4 way to base, distinctly narrowed basally, sometimes forming winged pseudo-petioliules, abaxially slightly ferruginous tomentose or glabrous, adaxially sparsely bristly or subglabrous, base cordate, often deeply so, margin serrulate, apex shortly acuminate. Inflorescence probably terminal, erect, unarmed, stellate pubescent, glabrescent; primary axis to 30 cm; secondary axes to 15 cm, with a terminal umbel of bisexual flowers and usually 1–3 umbels of male flowers; peduncles 2–3 cm; umbels ca. 4 cm in diam.; pedicels (8–)10–30 mm (shorter in male flowers), slender, glabrous or slightly puberulous, subtended by caducous bracteoles 1–2 mm. Ovary 2-carpellate. Fruit blue-black, globose, 5–6 mm in diam.; styles persistent, ca. 2 mm; pedicels in fruit ca. 1.5 cm. Fl. Apr–Jul, fr. Jan–Feb, Jun–Sep.  $2n = 48^*$ .

• Forests in valleys or on mountain slopes; 500–2700 m. Guizhou, Sichuan, Xizang, Yunnan.

**9. *Brassaiopsis dumicola*** W. W. Smith, Notes Roy. Bot. Gard.

Edinburgh 10: 11. 1917.

翅叶罗伞 *chi ye luo san*

*Brassaiopsis gausseui* N. S. Bui.

Shrubs or trees, to 9 m tall, hermaphroditic. Leaves simple, deeply ca. 9-lobed; petiole 15–26 cm, ferruginous tomentose; stipules united within petiole, apices free, elongate, ca. 1 cm; blade orbicular, ca. 30 cm wide, papery; lobes narrowly oblong, distinctly narrowed basally, sometimes forming winged pseudo-petiolules, 15–26 cm, divided 3/4–4/5 way to base, at first white or ferruginous stellate pubescent, later glabrescent, veins prominent adaxially, base deeply cordate, margin spinose-serrulate, apex long acuminate. Inflorescence lateral, pendent, unarmed, tomentose or subglabrous; primary axis 35(–40) cm; secondary axes to ca. 8 cm, stout; umbels ca. 3 cm in diam.; pedicels 5–8(–10) mm, stout, subtended by stiff persistent bracteoles 4–10 mm. Ovary 2- or 3-carpellate. Fruit not seen. Fl. Dec–Feb.

Forests in valleys. SW Yunnan [Vietnam].

**10. *Brassaiopsis grushvitzkyi*** J. Wen et al., Bot. J. Linn. Soc. 142: 461. 2003.

南星毛罗伞 *nan xing mao luo san*

*Grushvitzkyia stellata* Skvortsova & Averyanov, Bot. Zhurn. (Moscow & Leningrad) 79: 108. 1994.

Trees, small, 5–10 m tall, probably hermaphroditic. Leaves simple, (5–)7-lobed; petiole 25–50 cm, densely stellate pubescent; stipules united with petiole, apices free, ca. 1 cm; blade orbicular, 30–40 cm wide, thickly papery to subleathery; lobes ovate, 10–20 × 5–9.5 cm, divided ca. 3/4 way to base, both surfaces densely stellate-pubescent, veins prominent on both surfaces, base strongly cordate, margin entire, apex acuminate. Inflorescence terminal, descending to pendent, unarmed, densely stellate pubescent; primary axis 25–35 cm; secondary axes 8–10 cm; umbels 4–6 cm in diam.; pedicels 1.5–2.5 cm, subtended by bracteoles 1.2–1.4 cm. Ovary 5-carpellate. Fruit ovoid to nearly globose, 10.5–14 × 7.5–8.5(–9) mm; styles persistent, ca. 2 mm. Fr. Oct–Dec.

Forests on limestone. SW Yunnan [N Vietnam].

**11. *Brassaiopsis stellata*** K. M. Feng, Fl. Yunnan. 2: 463. 1979.

星毛罗伞 *xing mao luo san*

Trees, to 7 m tall. Branches scattered shortly prickly, densely yellowish gray stellate tomentose. Leaves simple, deeply 3–5-lobed; petiole 10–40 cm, densely stellate tomentose; blade 19–25 × 16–26 cm, papery; lobes ovate, abaxially densely yellowish gray stellate tomentose, adaxially sparsely stellate pubescent, base cordate, margin entire or slightly undulate, apex acuminate. Inflorescence terminal, erect, 27–40 cm, densely yellowish gray stellate tomentose; peduncles ca. 4 cm; umbels 3–3.5 cm in diam. Ovary 2-carpellate. Fruit globose, 7–9 mm in diam., stellate pubescent when young, then glabrescent; styles persistent, 1–2 mm; pedicels in fruit 1–2 cm, densely stellate pubescent. Fl. Sep–Oct, fr. Nov.

Mixed forests and roadsides; 600–1500 m. S Guangxi, Yunnan [N Vietnam].

**12. *Brassaiopsis ficifolia*** Dunn, J. Linn. Soc., Bot. 35: 500. 1903.

榕叶罗伞 *rong ye luo san*

Trees or climbers, to 10 m tall, hermaphroditic. Branches with scattered prickles. Leaves simple, (2 or)3-lobed; petiole 10–17 cm, unarmed or with few prickles; blade 14–35(–40) × 17–25 cm, papery; lobes ovate, usually narrowed basally, divided 1/2–3/4 to base, abaxially sparsely stellate pubescent or glabrous, adaxially glabrous, base deeply cordate, margin serrate, teeth blunt, triangular, 4–11 mm apart, apex acuminate. Inflorescence terminal, erect, sparsely stellate, unarmed; primary axis to 8 cm; peduncles 2–4.5 cm; umbels (1 or)2–4(or 5), 2.5–3.5 cm in diam.; pedicels 5–12 mm. Ovary 2-carpellate. Fruit globose, slightly compressed, 4–8 mm in diam.; styles persistent, ca. 2 mm. Fl. Aug–Oct, fr. Oct–Jan, Apr.

Forests or scrub on mountain slopes; 600–2500 m. Yunnan [Vietnam].

**13. *Brassaiopsis triloba*** K. M. Feng, Fl. Yunnan. 2: 463. 1979.

三裂罗伞 *san lie luo san*

Shrubs, to ca. 1.5 m tall, hermaphroditic. Branches unarmed. Leaves simple, 3(–)5-lobed; petiole 6–15 cm, glabrous or with few bristles apically; blade broadly ovate, 12–18 × 14–18 cm, papery; lobes obovate-oblong, narrowed basally, divided ca. 3/4 way to base, abaxially glabrous or with scattered bristles, adaxially glabrous, base truncate to very shallowly cordate, margin ciliate-serrulate, teeth linear, curved, spine-tipped, 2–4 mm apart, apex abruptly acuminate. Inflorescence terminal, erect, with small bristles; primary axis ca. 6 cm; peduncles to ca. 4 cm; umbels 2–4, 3–4 cm in diam.; pedicels 9–12 mm, to ca. 1.5 cm in fruit, slender. Ovary 2-carpellate. Flowers yellowish white. Fruit ovoid-globose, ca. 7 mm in diam.; styles persistent, ca. 3 mm. Fr. Dec.

Forest margins or roadsides; ca. 600 m. Guangxi (Baise, Lingluo), SE Yunnan (Funing) [N Vietnam].

**14. *Brassaiopsis ferruginea*** (H. L. Li) G. Hoo, Acta Phytotax. Sin., Addit. 1: 149. 1965.

锈毛罗伞 *xiu mao luo san*

*Dendropanax ferrugineus* H. L. Li, Sargentia 2: 47. 1942.

Shrubs, to ca. 2 m tall, hermaphroditic. Branches slender, unarmed, ferruginous stellate tomentose when young, glabrescent. Leaves simple, entire or 2- or 3-lobed; petiole 4–13 cm, slender; blade papery, those of unlobed leaves lanceolate to oblong-lanceolate or ovate-lanceolate, 7–20 × 1.5–5 cm; lobed leaves rhombic to obdelatate, 15–27 × 10–15 cm, lobes narrowly lanceolate to narrowly elliptic, only slightly narrowed basally, divided nearly to base, both surfaces densely ferruginous stellate pubescent when young, later abaxially scattered stellate pubescent, and adaxially later glabrous, base broadly cuneate to nearly rounded, margin serrulate, apex long acuminate to caudate. Inflorescence terminal, erect (pendent in fruit), unarmed,

ferruginous stellate pubescent when young, later glabrescent; primary axis 3–5(–8) cm; peduncles 2–7 cm; umbels 2–4, ca. 2 cm in diam. at anthesis, to 4 cm in fruit. Ovary 2(or 3)-carpellate. Fruit black, globose, 6–8 mm in diam. Fl. Mar–Aug, Nov, fr. May–Aug.

• Forests on mountain slopes; 1200–1700 m. Fujian, Guangdong, Guangxi, Guizhou, Sichuan, Yunnan.

**15. *Brassaiopsis moumingensis*** C. B. Shang, J. Nanjing Inst. Forest. 1985(2): 16. 1985.

茂名罗伞 mao ming luo san

Shrubs, to ca. 1 m tall, ?hermaphroditic. Branches unarmed or with few prickles. Leaves simple, 3- or 4-lobed; petiole 6–10 cm, ferruginous stellate when young; blade 10–16 × 10–20 cm, papery; lobes elliptic or oblong-elliptic, 8–13 cm, deeply divided, abaxially ferruginous stellate pubescent, base broadly cuneate or slightly cordate, margin serrate, apex acuminate. Inflorescence axillary, erect, unarmed; primary axis ca. 10 cm; peduncles 2–3 cm; umbels 2–5, ca. 1 cm in diam.; pedicels 1–2 mm, densely ferruginous stellate pubescent. Ovary 2-carpellate. Fruit unknown. Fl. Aug–Sep.

• Dense forests in valleys. Guangdong (Maoming).

The name *Brassaiopsis moumingensis* was intended as a new combination but is in fact the name of a new species. The protologue indicates the type and includes a direct reference to “*Euaraliopsis moumingensis*” (Y. R. Ling, Acta Phytotax. Sin. 15(2): 84. 1977), where a Latin description is provided. However, because the genus name “*Euaraliopsis*” was not validly published (see comment following genus description above), “*E. moumingensis*” was not validly published either.

**16. *Brassaiopsis chengkangensis*** H. H. Hu, Bull. Fan Mem. Inst. Biol., Bot. 10: 162. 1940.

镇康罗伞 zhen kang luo san

Trees, to ca. 15 m tall, hermaphroditic. Branches prickly. Leaves palmately compound; petiole 30–60 cm, stout; petiolules 1.5–4.5(–15) cm, 2.5–5 mm in diam., both surfaces densely ferruginous hispid when young; leaflets 5–7, ovate-oblong or oblong-lanceolate, 15–30(–50) × 6–17(–28) cm, leathery, both surfaces densely ferruginous stellate tomentose or bristly when young, later abaxially sparsely stellate pubescent, densely so on veins, later adaxially subglabrous, secondary veins 10–18 pairs, distinct on both surfaces, base broadly cuneate to truncate or rounded, margin entire or sparsely aristate-serrulate, apex acuminate or long acuminate. Inflorescence terminal, pendent, densely ferruginous bristly; primary axis to 70 cm, very stout; peduncles numerous, 1–6 cm at anthesis, to 9 cm in fruit; umbels 3.5–5 cm in diam. in fruit; pedicels 1–2.5 cm. Ovary 2(–4)-carpellate. Fruit not seen. Fl. Sep–Oct, Mar, fr. (immature) May.

• Forests on mountain slopes; 1700–2400 m. SW Yunnan.

**17. *Brassaiopsis producta*** (Dunn) C. B. Shang, Candollea 39: 485. 1984.

尖苞罗伞 jian bao luo san

*Heptapleurum productum* Dunn, J. Linn. Soc., Bot. 35: 499. 1903; *Brassaiopsis acuminata* H. L. Li var. *multiflora* G.

Hoo; *B. lepidota* K. M. Feng & Y. R. Li; *B. pentalocula* G. Hoo; *B. spinibracteata* G. Hoo; *Schefflera producta* (Dunn) R. Viguier.

Trees, to ca. 8 m tall, hermaphroditic. Branches with short, conic prickles. Leaves palmately compound, with (3 or)4–7(or 8) leaflets; petiole 10–35 cm; petiolules 1–3 cm, slender, 1–1.5 mm in diam.; leaflets oblong, rarely ovate-lanceolate, 10–16 × 3.5–8 cm, leathery, both surfaces glabrous, abaxially densely yellowish scaly when young, then with scattered scales, base cuneate or rounded, margin sharply serrate in apical 1/3–1/2, rarely entire, minutely revolute, apex acuminate or long acuminate. Inflorescence terminal, pendent, unarmed, densely ferruginous or yellowish tomentose when young, soon glabrescent; primary axis (17–)20–33 cm; bracts persistent, deltoid-ovate, 5–7 mm, spinescent; peduncles numerous, 1–4.5 cm; umbels ca. 2 cm in diam.; pedicels 3–7 mm, expanding to 1 cm in fruit, ferruginous or yellowish tomentose. Ovary 3–5-carpellate. Fruit globose, 7–8 mm in diam., slightly ribbed in dry specimens; styles persistent, ca. 2 mm. Fl. Aug–Nov, Feb, fr. Feb–Mar.

Scrub or dense forests on limestone mountains; below 1600 m. Guangxi, Guizhou, Yunnan [N Vietnam].

**18. *Brassaiopsis shweliensis*** W. W. Smith, Notes Roy. Bot. Gard. Edinburgh 10: 13. 1917.

瑞丽罗伞 rui li luo san

*Brassaiopsis karmalaica* Philipson; *B. suberipetala* K. M. Feng & Y. R. Li.

Trees, to ca. 8 m tall, hermaphroditic. Branches stout, prickly. Leaves palmately compound, with 6 or 7 leaflets; petiole (6–)10–20 cm; petiolules very short, less than 1 cm, slender, 1–1.5 mm in diam., both surfaces ferruginous tomentose, soon glabrescent; leaflets oblong to slightly obovate, 10–24 × 2–8 cm, leathery, ferruginous tomentose when young, soon glabrescent, secondary veins 12–15 pairs, distinct abaxially, base narrowly cuneate to attenuate, margin apically serrulate, apex long acuminate. Inflorescence lateral, probably ascending, unarmed, ferruginous tomentose or glabrous; primary axis to 10–30 cm, stout; peduncles 2.5–6 cm; umbels 2.5–4.5 cm in diam.; pedicels 1–2 cm; bracts cymbiform, ca. 1.5 cm, persistent. Ovary 2-carpellate. Fruit globose, ca. 7 mm in diam.; styles persistent, ca. 2 mm. Fl. Jun–Jul, Dec, fr. Dec.  $2n = 48^*$ .

• Evergreen broad-leaved forests on mountain slopes; 1800–2700 m. W Yunnan.

**19. *Brassaiopsis glomerulata*** (Blume) Regel, Gartenflora 1863: 275. 1863.

罗伞 luo san

*Aralia glomerulata* Blume, Bijdr. 873. 1826; *Acanthopanax esquirolii* H. Léveillé; *Brassaiopsis acuminata* H. L. Li; *B. coriacea* W. W. Smith; *B. glomerulata* var. *angustifolia* Y. R. Li; *B. glomerulata* var. *brevipedicellata* H. L. Li; *B. glomerulata* var. *coriacea* (W. W. Smith) H. L. Li; *B. glomerulata* var. *longipedicellata* H. L. Li; *B. liana* Y. F. Deng; *B. speciosa* Decaisne & Planchon; *Hedera floribunda* Wallich ex G. Don; *Macropanax glomerulatus* (Blume) Miquel.

Trees, to ca. 20 m tall, hermaphroditic. Branches prickly,

ferruginous red tomentose when young. Leaves palmately compound, with 5–9 leaflets; petiole 30–50 cm, slender; petiolules 2–9 cm, slender, 1–1.5 mm in diam.; leaflets oblong, ovate-elliptic, or broadly lanceolate, 15–35 × 6–15 cm, papery or sub-leathery, ferruginous stellate tomentose when young, soon glabrescent, secondary veins 7–10(–12) pairs, base cuneate or broadly cuneate to rounded, margin entire or sparsely serrulate, apex acuminate. Inflorescence terminal, pendent, unarmed, ferruginous-red tomentose when young; primary axis more than 30 cm; peduncles 2–5 cm; umbels 2–3 cm in diam.; pedicels 0.8–1.5 cm at anthesis, 1–3.5 cm in fruit. Ovary 2-carpellate. Fruit globose or compressed-globose to didymo-globose, 7–10 mm in diam.; styles persistent, 1–2 mm. Fl. Jun–Aug, fr. Jan–Feb.

Dense forests on mountain slopes or in valleys; 400–2400 m. Guangdong, Guangxi, Guizhou, Sichuan, Yunnan [Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Thailand, Vietnam].

This species is used medicinally and as an ornamental.

**20. *Brassaiopsis quercifolia*** G. Hoo, Acta Phytotax. Sin., Addit. 1: 152. 1965.

栎叶罗伞 li ye luo san

Trees, to ca. 4 m tall. Branches prickly. Leaves palmately compound, with 5–7 leaflets; petiole 9–20 cm; petiolules 1.5–3 cm; leaflets oblong, 10–15 × 3.5–4.5 cm, subleathery, both surfaces glabrous, secondary veins 8–12 pairs, base rounded, margin sharply serrate, apex long acuminate. Inflorescence terminal, paniculate, unarmed, ferruginous tomentose, glabrescent; primary axis ca. 35 cm; peduncles ca. 15, 2–6 cm; pedicels to 6–8 mm in fruit. Ovary 2-carpellate. Fruit ellipsoid-globose, ca. 9 × 4 mm (immature); styles persistent, ca. 2 mm.

• Forests on limestone mountain slopes; below 800 m. Guangxi (Yangshuo).

**21. *Brassaiopsis kwangsiensis*** G. Hoo, Acta Phytotax. Sin., Addit. 1: 150. 1965.

广西罗伞 guang xi luo san

Shrubs, to ca. 3 m tall. Branches prickly, glabrous. Leaves palmately compound, with 6–8 leaflets; petiole 8–32 cm; petiolules 1.5–6.5 cm; leaflets oblong-lanceolate, 12–20 × 3–6 cm, lateral ones smaller, asymmetric, papery, both surfaces glabrous, abaxially glaucous, secondary veins 10–15 pairs, base rounded to broadly cuneate, margin entire to sparsely serrate apically, apex long acuminate. Inflorescence terminal, axes white stellate tomentose; primary axis ca. 7 cm, of 4 or 5 umbels; peduncles 1–2 cm; umbels 1.5–2.5 cm in diam.; pedicels 3–4 mm. Ovary 3- or 4-carpellate. Fruit oblong-globose (immature), ca. 3.5 mm in diam.; styles persistent, ca. 2 mm. Fl. Dec, fr. Jun.

• Forests or dry valleys; 400–1300 m. Guangxi, Guizhou, Yunnan.

**22. *Brassaiopsis tripteris*** (H. Léveillé) Rehder, J. Arnold Arbor. 10: 115. 1934.

显脉罗伞 xian mai luo san

*Heptapleurum tripteris* H. Léveillé, Bull. Acad. Int. Géogr.

Bot. 24: 145. 1914; *Acanthopanax phanerophlebius* Merrill & Chun; *Brassaiopsis phanerophlebia* (Merrill & Chun) P. N. Hô; *Eleutherococcus phanerophlebius* (Merrill & Chun) S. Y. Hu.

Shrubs, to 2 m tall, hermaphroditic. Branches with short conic prickles. Leaves palmately compound, with 3(–5) leaflets; petiole 8–13 cm; petiolules very short or leaflets subsessile; leaflets obovate-oblong, 10–18 × 4–8 cm, lateral ones asymmetric, papery, both surfaces glabrous, base attenuate to cuneate, margin setose-serrulate, apex acute or acuminate. Inflorescence terminal, erect, unarmed, bristly and ferruginous tomentose or nearly glabrous; primary axis 2–4 cm, with 2 or 3 umbels; peduncles 1–4 cm; umbels 1.5–2.5 cm in diam. at anthesis; pedicels 1–1.5 cm, slender. Ovary 2-carpellate; styles columnar, ca. 2 mm. Fruit not seen. Fl. Oct.

• Forest margins on mountain slopes; below 1000 m. Guangdong, Guangxi, Guizhou, Yunnan.

**23. *Brassaiopsis angustifolia*** K. M. Feng, Fl. Yunnan. 2: 471. 1979.

狭叶罗伞 xia ye luo san

Shrubs, to ca. 2 m tall. Branches prickly, densely ferruginous tomentose when young, glabrescent. Leaves palmately compound, with (4 or) 5 leaflets; petiole 9–25 cm, slender, ferruginous tomentose when young; leaflets sessile or petiolules less than 1 cm; leaflets narrowly lanceolate, 13–24 × 1.5–2.5 cm, lateral ones usually slightly asymmetric, papery, abaxially sparsely ferruginous stellate tomentose, adaxially glabrous, secondary veins 12–21 pairs, base cuneate, margin serrulate, apex long acuminate. Inflorescence pseudo-lateral, a raceme of 3 or 4 umbels, ferruginous tomentose and sparsely prickly; primary axis ca. 8 cm; peduncles 1.5–2 cm; umbels ca. 2 cm in diam.; pedicels ca. 7 mm, ferruginous tomentose when young. Ovary 2-carpellate. Fruit unknown. Fl. Nov.

Forests in valleys or on hillsides; ca. 2100 m. S Yunnan [N Vietnam].

**24. *Brassaiopsis gracilis*** Handel-Mazzetti, Sinensia 3: 197. 1933.

细梗罗伞 xi geng luo san

Shrubs, to 4 m tall, hermaphroditic. Branches prickly, glabrous. Leaves palmately compound, with 5–9 leaflets; petiole 6–16 cm, slender; petiolules 0–1.5 cm, sparsely pubescent; leaflets ovate to elliptic-lanceolate, 8–20 × 3–8 cm, membranous, abaxially glabrous or sparsely pubescent, adaxially with scattered short bristles, secondary veins 6–8 pairs, base narrowly cuneate to nearly acuminate, margin serrulate, apex long acuminate, rarely acute. Inflorescence axillary, unarmed, densely ferruginous tomentose; primary axis to ca. 10 cm, with 4 or

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5(–10) umbels; peduncles 2–4(–5) cm; umbels 1.5–2.5 cm in diam.; pedicels filiform, 5–9 mm, expanding in fruit to 1.5 cm. Ovary 2-carpellate. Fruit subglobose, ca. 5 mm in diam.; styles persistent, ca. 2.5 mm. Fl. Aug–Oct, fr. Oct–Dec.

Evergreen forests or scrub; 1000–1600 m. Guangxi, Guizhou, Yunnan [N Vietnam].

