
山矾属 shan fan shu

Morphological characters and geographical distribution are the same as the family.

Key to the species based primarily on flower characters

1a. Petals connate at least halfway to apex (subgen. Symplocos) ................................................................. 41. *S. pendula*

1b. Petals connate only at very base (subgen. *Hopea* (Linnaeus) C. B. Clarke).

2a. Plants deciduous; inflorescences terminal panicles ................................................................. 40. *S. paniculata*

2b. Plants evergreen; inflorescences not terminal.

3a. Flowers 1–3 from a leaf axil.

4a. Petiole with 2 rows of glands; twigs pubescent or tomentose; bracts ca. 1 mm; fruit oblong .......... 5. *S. euryoides*

4b. Petiole without glands or with few glands; twigs puberulent or patent pilose; bracts 2–4 mm;
fruit ampulliform or ovoid.

5a. Leaf blade abaxially glabrous, apex acute to rounded, reticulation obscure;
twigs inconspicuously puberulent; calyx glabrous, lobes ca. 2 mm; disc cupular;
fruit ovoid, ca. 5 mm wide ........................................................................................................ 9. *S. nokoensis*

5b. Leaf blade abaxially hairy at least when young, apex acuminate, reticulation distinct;
twigs patent pilose; calyx pubescent, lobes 2.5–3 mm; disc cylindric;
fruit ampulliform, ca. 4 mm wide ............................................................................................ 6. *S. ovatilobata*

3b. Flowers in more than 3-flowered inflorescences.

6a. Leaf blade midvein adaxially prominent at least toward base or flat.

7a. Twigs, terminal buds, bracts, and bractlets glabrous ................................................................. 1. *S. lucida*

7b. Twigs hairy at least when young, terminal buds pubescent, bracts and bractlets hairy.

8a. Leaf blade adaxially hairy, base broadly cuneate to rounded ..................................................... 4. *S. groffii*

8b. Leaf blade adaxially glabrous, base attenuate-cuneate to narrowly cuneate.

9a. Inflorescences branched racemes; leaf blade abaxially glabrous; bracts and bractlets persistent ........................................................................................................ 2. *S. anomala*

9b. Inflorescences branched spikes; leaf blade abaxially hairy at least when young; bracts and bractlets under fruit early deciduous.

10a. Leaves evenly distributed; leaf blade abaxially often appressed
fine hairy, base attenuate-cuneate, intramarginal vein not close
to margin; fruit ellipsoid to subglobose, 3–5 × 2–5 mm ................. 27. *S. lancifolia*

10b. Leaves crowded at end of branchlets; leaf blade abaxially
minutely scattered hairy, base narrowly cuneate, intramarginal
vein close to margin; fruit ovoid, 10–12 × 6–8 mm ..................... 3. *S. wikstroemiifolia*

6b. Leaf blade midvein adaxially impressed.

11a. Inflorescences sessile or rarely elongated clusters or glomerules.

12a. Leaf blade abaxially hairy at least when young.

13a. Ovary hairy.

14a. Petiole ca. 2 cm; twigs tomentose; leaf blade narrowly elliptic,
abaxially with cobwebby hairs, margin with 8–12 glands per cm;
bracts 2.5–3 mm; calyx lobes ca. 2 mm; corolla 5–6 mm, fruit
cylindric .................................................................................................................. 30. *S. glandulifera*

14b. Petiole 0.3–0.5 cm; twigs puberulent; leaf blade elliptic to ovate,
abaxially with appressed fine hairs, margin with less than 6 glands
per cm; bracts ca. 2 mm; calyx lobes ca. 1 mm; corolla 3–4 mm;
fruit ampulliform to ovoid ........................................................................ 16. *S. atriolivacea*

13b. Ovary glabrous.

15a. Leaf blade adaxially hairy; twigs pubescent; fruit subglobose, ca.
5 mm ........................................................................................................ 36. *S. dolichotricha*

15b. Leaf blade adaxially glabrous; twigs tomentose, villous, or
tomentellous; fruit cylindric, ellipsoid, or narrowly ovoid, 8–20 mm.

16a. Calyx hairy.

17a. Leaf blade 7–10 cm, abaxially not papillate and not
glaucous, base broadly cuneate, intramarginal vein present,
reticulation distinct; twigs tomentose; fruit ellipsoid,
ca. 1 cm .................................................................................... 35. *S. fukienensis*
17b. Leaf blade 10–26 cm, abaxially papillate (always so near base) and glaucous, base cuneate, intramarginal vein absent, reticulation obscure; twigs tomentellous to tomentose; fruit cylindric to narrowly ovoid, 1.2–2 cm .............................. 10. *S. glauca*

16b. Calyx glabrous but sometimes margin ciliate.

18a. Petiole without glands or with few glands; leaf blade narrowly elliptic to narrowly ovate, margin entire, apex acute to rounded, intramarginal vein close to margin; corolla ca. 6 mm; disc flat, annular ............................................. 34. *S. ulotricha*

18b. Petiole with 2 rows of glands; leaf blade elliptic to ovate, margin glandular dentate to denticulate with 6–12 glands per cm, apex acuminate, intramarginal vein not close to margin; corolla 3–5 mm; disc cylindric, 0.5–1 mm .................... 32. *S. adenopus*

12b. Leaf blade abaxially glabrous.

19a. Calyx hairy; fruit 6–8 mm wide ................................................................. 10. *S. glauca*

19b. Calyx glabrous but sometimes margin ciliate, rarely woolly tomentose; fruit 2.5–5 mm wide (not known in *S. spectabilis*).

20a. Leaf blade margin with 6–12 glands per cm ......................................... 32. *S. adenopus*

20b. Leaf blade margin without glands or with less than 6 glands per cm.

21a. Disc cylindric (annular in *S. spectabilis*).

22a. Leaf blade margin glandular dentate to denticulate.

23a. Stamens ca. 50; corolla apically ciliate, 5–8 mm ............... 33. *S. stellaris*

23b. Stamens ca. 30; corolla glabrous, 4–5 mm .................... 31. *S. glomerata*

22b. Leaf blade margin entire with distinct marginal thickening.

24a. Leaf blade margin revolute, lateral veins abaxially obscure ................................................................................. 33. *S. stellaris*

24b. Leaf blade margin flat, lateral veins prominent ............. 42. *S. spectabilis*

21b. Disc flat, low cylindric, or annular, often 5-glandular.

25a. Twigs glabrous; leaf blade with 11–14 pairs of lateral veins .... 39. *S. poilanei*

25b. Twigs hairy at least when young; leaf blade with 5–10 pairs of lateral veins.

26a. Twigs tomentellous; leaf blade elliptic to obovate, reticulation distinct; calyx lobes 1.5–3.5 mm .................... 38. *S. congesta*

26b. Twigs puberulent; leaf blade narrowly elliptic, reticulation obscure; calyx lobes ca. 1 mm .................. 37. *S. austrosinensis*

11b. Inflorescences branched spikes or racemes.

27a. Ovary hairy (glabrous in *S. xylopyrena*).

28a. Bracts and bractlets glabrous or subglabrous but margin sometimes ciliate.

29a. Leaf blade with 11–13 pairs of lateral veins; ovary ca. 1.7 mm; corolla ca. 6 mm; fruit ca. 3 × 1 cm ................................................................. 18. *S. xylopyrena*

29b. Leaf blade with 4–10 veins of lateral veins; ovary 1–1.5 mm; corolla 3–5 mm; fruit 0.9–1.2 × 0.4–0.5 cm .................................................. 17. *S. ramosissima*

28b. Bracts and bractlets hairy.

30a. Petiole with 2 rows of glands; leaf blade margin with 6–12 glands per cm ................................................................. 15. *S. adenophylla*

30b. Petiole without glands or with few glands; leaf blade margin with less than 6 glands per cm.

31a. Inflorescences branched spikes ..................................................... 16. *S. atriolivacea*

31b. Inflorescences branched or unbranched racemes or racemes forming a pseudocone in bud.

32a. Twigs glabrous.

33a. Disc cylindric to pulvinate; leaf blade intramarginal vein not close to margin; bracts and bractlets persistent ................................................................ 11. *S. viridissima*

33b. Disc flat or annular; leaf blade intramarginal vein close to margin; bracts and bractlets under fruit early deciduous ........................................... 7. *S. sumuntia*

32b. Twigs hairy at least when young.
34a. Disc hairy; inflorescences racemes, forming pseudocones in bud; bracts and bractlets under fruit early deciduous.

35a. Leaf blade narrowly elliptic to narrowly ovate, abaxially minutely appressed hairy to pubescent, base cuneate, reticulation distinct; corolla ca. 4 mm; fruit 7–10 × ca. 4 mm ........... 25. S. sulcata

35b. Leaf blade obovate, abaxially tomentose, base broadly cuneate, reticulation obscure; corolla 6–9 mm; fruit 14–24 × 5–9 mm ............ 23. S. hookeri

34b. Disc glabrous; inflorescences branched racemes; bracts and bractlets persistent.

36a. Leaf blade abaxially spreading long pilose; twigs densely pilose; terminal buds with long hairs; disc flat; fruit cylindric, ca. 1.4 cm ................................................................. 26. S. pilosa

36b. Leaf blade abaxially appressed fine hairy or glabrous; twigs pubescent; terminal buds pubescent; disc cylindric; fruit ampulliform, 0.7–1 cm .......................................................... 11. S. viridissima

27b. Ovary glabrous.

37a. Inflorescences branched spikes.

38a. Calyx hairy ........................................................................................... 28. S. cochinchinensis

38b. Calyx glabrous.

39a. Twigs hairy at least when young; terminal buds with long hairs; petiole 2–3 mm; leaf blade abaxially hairy at least when young, apex caudate; calyx 3-lobed; fruit ovoid ................................................ 8. S. fordii

39b. Twigs glabrous; terminal buds glabrous or pubescent; petiole 7–25 mm; leaf blade abaxially glabrous, apex rounded, acuminate, or acute; calyx 5-lobed; fruit cylindric, ampulliform, narrowly ovoid, or subglobose.

40a. Leaf blade obovate; inflorescences 0.5–1.5 cm ....................... 39. S. poilanei

40b. Leaf blade narrowly elliptic, elliptic, or ovate; inflorescences 3–14 cm.

41a. Leaf blade margin serrulate; terminal buds glabrous; bracts and bractlets under fruit early deciduous; bracts ca. 1 mm; fruit cylindric to narrowly ovoid, 12–15 mm ................................................................. 13. S. hainanensis

41b. Leaf blade margin glandular dentate or denticulate; terminal buds pubescent; bracts and bractlets persistent; bracts ca. 2 mm; fruit ampulliform or subglobose, 4–6 mm ................................................................. 28. S. cochinchinensis

37b. Inflorescences branched racemes or a racemes forming a pseudocone in bud.

42a. Bracts and bractlets glabrous or soon glabrescent.

43a. Petiole 1.5–4 mm ............................................................................. 19. S. modesta

43b. Petiole 5–30 mm.

44a. Disc hairy .......................................................................................... 23. S. hookeri

44b. Disc glabrous.

45a. Calyx lobes ca. 1.5 mm; leaf blade reticulation fine; inflorescences racemes, forming a pseudocone in bud; bracts and bractlets under fruit early deciduous; bracts 5–9 mm; ovary 1.5–2 mm; corolla 6–7 mm; fruit ellipsoid to obovoid, 1.5–2 cm ............................................. 22. S. crassilimba

45b. Calyx lobes 0.3–0.5 mm; leaf blade reticulation coarse; inflorescences branched racemes; bracts and bractlets persistent; bracts 1–2 mm; ovary ca. 1 mm; corolla 1.5–4 mm; fruit ovoid-oblong to ampulliform, 0.6–0.8 cm ................................................ 12. S. pseudobarberina
42b. Bracts and bractlets hairy.

46a. Leaf blade abaxially hairy at least when young ................................. 21. *S. racemosa*
46b. Leaf blade abaxially glabrous.

47a. Twigs hairy at least when young.

48a. Leaf blade apex caudate-acuminate; stamens 20–50;
disc glabrous ................................................................. 14. *S. heishanensis*
48b. Leaf blade apex acute to obtuse; stamens 80 or more;
disc hairy ........................................................................ 21. *S. racemosa*

47b. Twigs glabrous or base of young twigs hairy between scars of bud scales.

49a. Twigs glabrous but base of young twigs hairy between scars of bud scales.

50a. Leaf blade narrowly elliptic, reticulation fine;
inflorescences racemes forming a pseudocone in bud, ca. 4 cm; calyx hairy ....................... 24. *S. pyrifolia*
50b. Leaf blade elliptic to narrowly obovate,
reticulation coarse; inflorescences racemes,
6–9 cm; calyx glabrous .................................................. 20. *S. dryophila*

49b. Twigs glabrous.

51a. Disc hairy; leaf blade base narrowly or broadly cuneate.

52a. Petiole 0.5–0.7 cm; terminal buds pubescent;
leaf blade narrowly elliptic, lateral veins 3–5
per side, reticulation obscure; inflorescences branched racemes; calyx hairy .................. 29. *S. paucinervia*
52b. Petiole 1.2–3 cm; terminal buds glabrous;
leaf blade obovate, 15–25 × 5.5–10 cm, base
broadly cuneate, lateral veins 6–11 per side,
reticulation distinct; inflorescences racemes
forming pseudocones in bud; calyx glabrous ................................................................. 23. *S. hookeri*

51b. Disc glabrous; leaf blade base cuneate or rounded.

53a. Bracts ca. 1 mm; fruit cylindric to narrowly ovoid ........................................ 13. *S. hainanensis*
53b. Bracts 1.5–5 mm; fruit ampulliform to ovoid.

54a. Leaf blade narrowly elliptic to narrowly obovate, lateral veins
9–14 per side, reticulation obscure ......................................... 14. *S. heishanensis*
54b. Leaf blade elliptic to ovate,
lateral veins 4–8(–10) per side,
reticulation distinct .................................................... 7. *S. sumuntia*

Key to the species based primarily on fruit characters.

1a. Fruit fusiform, hairy superior part of ovary usually visible between calyx lobes (subgen. *Symplocos*) ................. 41. *S. pendula*
1b. Fruit not as above (not known in *S. spectabilis*) (subgen. *Hopea* (Linnaeus) C. B. Clarke).

2a. Inflorescences terminal panicles; plant deciduous ................................................................. 40. *S. paniculata*
2b. Inflorescences not terminal and generally not panicles; plant evergreen.

3a. Leaf blade midvein adaxially prominent at least toward base or flat.

4a. Twigs and terminal buds glabrous; bracts and bractlets glabrous .......................................................... 1. *S. lucida*
4b. Twigs (at least when young) and terminal buds hairy; bracts and bractlets hairy.

5a. Leaf blade abaxially glabrous ................................................................. 2. *S. anomala*
5b. Leaf blade abaxially hairy at least when young.

6a. Leaf blade abaxially pubescent, adaxially hairy, base broadly cuneate to rounded ......................... 4. *S. groffii*
6b. Leaf blade abaxially minutely scattered hairy or appressed fine hairy, adaxially glabrous (or rarely sparsely fine hairy in *S. lancifolia*), base attenuate-cuneate or narrowly cuneate.
7a. Fruit ellipsoid to subglobose, 3–5 × 2–5 mm; leaves evenly distributed; leaf blade abaxially appressed fine hairy, base attenuate-cuneate, intramarginal vein not close to margin ................................................................. 27. S. lancifolia

7b. Fruit ovoid, 10–12 × 6–8 mm; leaves crowded at end of branchlets; leaf blade abaxially minutely scattered hairy, base narrowly cuneate, intramarginal vein close to margin ................................................................. 3. S. wikstroemiifolia

3b. Leaf blade midvein adaxially impressed.

8a. Infructescences glomerules or fruit 1–3 in a leaf axil.

9a. Fruit 1–3 in a leaf axil.

10a. Petiole with 2 rows of glands; twigs pubescent to tomentose; bracts ca. 1 mm; fruit oblong ....................................................................................................................... 5. S. euryoides

10b. Petiole without glands or with few glands; twigs puberulent or patent pilose; bracts 2–4 mm; fruit ampulliform or ovoid.

11a. Twigs puberulent; leaf blade abaxially glabrous, apex acute to rounded, reticulation obscure; fruit ovoid, ca. 5 mm wide ................................................................. 9. S. nokoensis

11b. Twigs patent pilose; leaf blade abaxially hairy at least when young, apex acuminate to caudate, reticulation distinct; fruit ampulliform, ca. 4 mm wide ...... 6. S. ovatilobata

9b. Infructescences glomerules or fascicles.

12a. Leaf blade adaxially hairy; fruit subglobose, ca. 5 mm ................................................. 36. S. dolichotricha

12b. Leaf blade adaxially glabrous; fruit cylindric, ellipsoid, ampulliform, narrowly ovoid, or ovoid, 6–20 mm.

13a. Fruit ellipsoid, ampulliform, or ovoid.

14a. Twigs glabrous; petiole 25–30 mm ................................................................................. 42. S. spectabilis

14b. Twigs hairy; petiole 3–20 mm.

15a. Fruit ellipsoid; twigs tomentose; petiole 1.5–2 cm; leaf blade abaxially woolly-villous, base broadly cuneate, apex short acuminate to acute ......................................................... 35. S. fukienensis

15b. Fruit ovoid to ampulliform; twigs puberulent; petiole 0.3–0.5 cm; leaf blade abaxially appressed fine hairy, base cuneate to rounded, apex acuminate ............................................................. 16. S. atriolivacea

13b. Fruit cylindric or narrowly ovoid.

16a. Leaf blade margin with 6–12 glands per cm.

17a. Leaf blade elliptic to ovate, abaxially appressed fine hairy to tomentose, base broadly cuneate to rounded; fruit 2.5–3 mm wide ...... 32. S. adenopus

17b. Leaf blade narrowly elliptic, abaxially with cobwebby hairs; base cuneate; fruit ca. 4 mm wide ......................................................... 30. S. glandulifera

16b. Leaf blade margin with less than 6 glands per cm.

18a. Leaf blade abaxially hairy at least when young.

19a. Fruit ca. 1 cm; leaf blade abaxially not papillate and not glaucous, base broadly cuneate to rounded, intramarginal vein present ................................................................. 34. S. ulotricha

19b. Fruit 1.2–2 cm; leaf blade abaxially always papillate near base and glaucous, base cuneate, intramarginal vein absent .......................... 10. S. glauca

18b. Leaf blade abaxially glabrous.

20a. Fruit 6–8 mm wide; calyx glabrous or hairy.

21a. Leaf blade obovate, not glaucous abaxially; calyx glabrous ................................................................................................. 42. S. spectabilis

21b. Leaf blade narrowly elliptic or obovate, glaucous abaxially; calyx hairy ....................................................................................... 10. S. glauca

20b. Fruit 2.5–5 mm wide; calyx glabrous or rarely woolly- tomentose.

22a. Leaf blade narrowly elliptic to narrowly obovate.

23a. Twigs puberulent .................................................................................... 37. S. austrosinensis

23b. Twigs tomentellous or glabrous.

24a. Leaf blade margin entire ........................................................................ 33. S. stellaris

24b. Leaf blade margin glandular dentate to denticulate ................................................. 31. S. glomerata

22b. Leaf blade elliptic or obovate.

25a. Twigs hairy.
8b. Infructescences branched or unbranched spikes or racemes.

29a. Fruit sessile.

30a. Leaf blade abaxially glabrous.

31a. Fruit ampulliform to globose .................................................. 28. S. cochinensis

31b. Fruit cylindric or narrowly ovoid.

32a. Leaf blade obovate; terminal buds pubescent; infructescences 0.5–1.5 cm; bracts and bractlets persistent; bracts 2–3 mm; fruit 6–8 × ca. 3 mm .......................................................... 39. S. poilanei

32b. Leaf blade narrowly elliptic, elliptic, or ovate; terminal buds glabrous; infructescences 3–6 cm; bracts and bractlets under fruit early deciduous; bracts ca. 1 mm; fruit 12–15 × 4–5 mm .................. 13. S. hainanensis

30b. Leaf blade abaxially hairy at least when young.

33a. Petiole with 2 rows of glands; leaf blade abaxially and often also adaxially powdery puberulent, margin with 6–12 glands per cm; fruit cylindric to ellipsoid .............................................. 15. S. adenophylla

33b. Petiole without glands or with few glands; leaf blade abaxially not powdery puberulent, margin with less than 6 glands per cm; fruit ampulliform, ovoid, or subglobose.

34a. Petiole 10–20 mm; infructescences 6–11 cm; bracts ca. 3 mm; calyx lobes 2 mm or more .......................................................... 28. S. cochinensis

34b. Petiole 2–5 mm; infructescences 0.5–2 cm; bracts 1–2 mm; calyx lobes less than 2 mm.

35a. Twigs puberulent; leaf blade abaxially appressed fine hairy, base cuneate to rounded, apex acuminate; bracts ca. 2 mm .......... 16. S. atriolivacea

35b. Twigs villous; leaf blade abaxially pubescent, base cordate, apex caudate; bracts ca. 1 mm ......................................................... 8. S. fordii

29b. Fruit stalked.

36a. Leaf blade abaxially hairy at least when young.

37a. Fruit ampulliform ........................................................................ 11. S. viridissima

37b. Fruit cylindric or ellipsoid.

38a. Petiole with 2 rows of glands; twigs tomentellous to puberulent; leaf blade abaxially and often also adaxially powdery puberulent, margin of leaf 6–12 glands per cm .............................................. 15. S. adenophylla

38b. Petiole without glands or with few glands; twigs pubescent, tomentose, or villous; leaf blade abaxially minutely scattered hairy, appressed fine hairy, tomentose, or spreading long pilose, margin with less than 6 glands per cm.

39a. Leaf blade obovate, abaxially tomentose, base broadly cuneate ...... 23. S. hookeri

39b. Leaf blade narrowly elliptic, elliptic, narrowly ovate, ovate, or narrowly obovate, abaxially minutely scattered hairy, pubescent, appressed fine hairy, or spreading long pilose, base attenuate-cuneate, rounded, or cordate.

40a. Leaf blade abaxially spreading long pilose; bracts and bractlets persistent .............................................................. 26. S. pilosa

40b. Leaf blade abaxially minutely scattered hairy, pubescent, or appressed fine hairy; bracts and bractlets under fruit early deciduous.

41a. Fruit ca. 3 cm ................................................................. 11. S. xylopyrena
41b. Fruit 0.7–1.2 cm.
   42a. Twigs tomentose to villous; leaf blade
       reticulation fine ............................................................. 25. S. sulcata
   42b. Twigs pubescent; leaf blade reticulation coarse.
       43a. Leaf blade abaxially pubescent; bracts and
           bractlets hairy ............................................................ 21. S. racemosa
       43b. Leaf blade abaxially appressed fine hairy;
           bracts and bractlets glabrous or
           subglabrous ................................................................. 17. S. ramosissima

36b. Leaf blade abaxially glabrous.
   44a. Fruit oblong, ovoid-oblong, ampulliform, ovoid, or subglobose.
       45a. Leaf blade narrowly elliptic or narrowly obovate.
           46a. Leaf blade base narrowly cuneate, lateral veins 3–5 per side;
               shrubs ................................................................. 29. S. paucinervia
           46b. Leaf blade base cuneate, lateral veins 9–14 per side; trees ....... 14. S. heishanensis
       45b. Leaf blade elliptic or obovate.
           47a. Bracts and bractlets under fruit early deciduous.
               48a. Leaf blade reticulation obscure; shrubs ........................................ 19. S. modesta
               48b. Leaf blade reticulation distinct; trees ............................................ 7. S. sumuntia
           47b. Bracts and bractlets persistent.
               49a. Infructescences 3–7 cm; terminal buds glabrous;
                   bracts and bractlets glabrous ........................................... 12. S. pseudobarberina
               49b. Infructescences 0.8–2 cm; terminal buds pubescent;
                   bracts and bractlets hairy .......................................................... 11. S. viridissima
       44b. Fruit cylindric, ellipsoid, narrowly ovoid, or obovate.
           50a. Leaf blade 5.1–10 cm wide.
               51a. Leaf blade 15–25 cm ............................................................. 23. S. hookeri
               51b. Leaf blade 6–14.5 cm ............................................................ 22. S. crassilimba
           50b. Leaf blade 1–4.5 cm wide.
               52a. Leaf blade lateral veins 3–5 per side.
                   53a. Leaf blade base narrowly cuneate, intramarginal vein
                       close to margin; bracts and bractlets hairy ....................................... 29. S. paucinervia
                   53b. Leaf blade base cuneate to rounded, intramarginal vein
                       not close to margin; bracts and bractlets glabrous to
                       subglabrous ................................................................. 17. S. ramosissima
           52b. Leaf blade lateral veins 6–13 per side.
               54a. Fruit cylindric or narrowly ovoid.
                   55a. Twigs glabrous but base of young twigs hairy between
                       scars of bud scales; leaf blade reticulation fine;
                       fruit 0.6–1 cm ............................................................. 24. S. pyrifolia
                   55b. Twigs glabrous; leaf blade reticulation coarse; fruit
                       1.2–1.5 cm ................................................................. 13. S. hainanensis
               54b. Fruit ellipsoid or obovoid.
                   56a. Twigs glabrous but base of young twigs hairy between scars
                       of bud scales; bracts and bractlets hairy.
                       57a. Leaf blade narrowly elliptic, reticulation fine;
                           infructescences ca. 4 cm .................................................. 24. S. pyrifolia
                       57b. Leaf blade elliptic to narrowly obovate,
                           reticulation coarse; infructescences 6–9 cm ............. 20. S. dryophila
                   56b. Twigs glabrous or hairy at least when young; bracts
                       and bractlets glabrous or subglabrous.
                       58a. Fruit ca. 3 cm ............................................................. 18. S. xylopyrena
                       58b. Fruit 0.9–2 cm.
                           59a. Leaf blade reticulation fine; fruit 6–8 mm
                               wide ................................................................. 22. S. crassilimba
                           59b. Leaf blade reticulation coarse; fruit 4–5 mm
                               wide ................................................................... 17. S. ramosissima

光亮山矾  guang liang shan fan

Laurus lucida Thunberg in Murray, Syst. Veg. ed. 14, 383. 1784; Bobua ilicifolia (Hayata) Kamehira & Sasaki; Dicaxis crassifolia (Bentham) Migo; D. ernestii (Dunn) Migo; D. setchuenensis (Brand) Migo; D. shinodontus Migo; Symplocos acutangula Brand; S. coronigeria H. Lévêillé; S. crassifolia Bentham; S. discolor Brand; S. ernestii Dunn; S. henryi Brand; S. howii Merrill & Chun ex H. L. Li; S. ilicifolia Hayata; S. multipes Brand; S. phyllocalyx C. B. Clarke; S. potanini Gontscharow; S. setchuenensis Brand; S. shilanensis Y. C. Liu & F. Y. Lu; S. simuata Brand; S. tetragona Chen ex Y. F. Wu; S. theifolia D. Don; S. wilsonii Brand (December 1906), not Hemsley (July 1906); S. xanthoxantha H. Lévêillé.

Shrubs or trees. Branchlets mostly yellowish green, slightly angled to winged, glabrous. Petiole 0.5–1.5 cm; leaf blade oblong to narrowly elliptic, 5–13 × 2–5 cm, leathery, glabrous, base cuneate, margin revolute and entire or sharply dentate, apex long acuminate to acute; midvein adaxially flat to slightly prominent, lateral veins 4–15 per side. Inflorescences basally branched spikes or racemes, shortened to a prominent, often sulcate, lateral veins 4–15 per side. Inflorescences basally branched spikes or racemes, shortened to a fascicle or up to 6 cm, axis mostly puberulent to pubescent; bracts and bractlets persistent, broadly obovate, 1–3 mm, often glabrous. Ovary tomentose, 0.5–2 mm. Calyx 1–3 mm, puberulent, or woolly-sericeous. Style ± as long as corolla to much shorter, glabrous or hairy toward base. Drupe oval to mostly ellipsoid, 0.5–1.8 × 0.4–1.3 cm, apex with persistent calyx lobes. Seeds and embryo usually U-shaped. Fl. Mar–Dec, fr. May–Dec.

Mixed forests; 500–2600 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangsu, Jiangxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Thailand, Vietnam].

In many collections the petals in Symplocus lucida are decurrent on the twigs, making the latter ridged to slightly winged. The name S. tetragona has been applied to the extreme condition, but after careful study it is apparent that, apart from winged branches, S. tetragona is indistinguishable from S. lucida.


薄叶山矾  bo ye shan fan

Dicaxis anomalous (Brand) Migo; D. fusonii (Merrill) Migo; Symplocos alata Brand; S. anomala var. fusonii (Merrill) Handel-Mazzetti; S. anomala var. nitida H. L. Li; S. argentea Brand; S. dielsii H. Lévêillé; S. doi Hayata; S. esquirolii H. Lévêillé; S. fusonii Merrill; S. kiraishiensis Hayata; S. morrisonicola Hayata; S. okinawensis Matsumura.

Shrubs or small trees. Young branchlets tomentose-tomentose to brown pubescent, rarely very soon glabrescent but then still hairy directly under terminal bud. Petiole 2–7 mm; leaf blade narrowly elliptic, elliptic, or ovate, 2–7(–11) × 1.2–3 cm, thin leathery, abaxially glabrous or rarely young leaves finely appressed hairy, adaxially brownish, olive, or sometimes yellowish green glossy, base attenuate-cuneate, margin entire or finely glandular dentate, apex acuminate; midvein and lateral veins adaxially prominent, lateral veins 5–11 per side. Racemes 0.8–1.5(–3.5) cm, sometimes 1–3-branched from base, axis tomentose to appressed pubescent; bracts and bractlets persistent, often ovate, with same indument, bracts 1–2 mm, bractlets 0.8–1.5 mm. Ovary ca. 1 mm, tomentose to finely appressed pubescent, rarely glabrous. Calyx 1–2.5 mm, tomentose to finely appressed pubescent, rarely glabrous; lobes semi-elliptic to semi-ovaricolab. 0.5–2 mm, margin ciliate. Corolla 4–6 mm. Stamens (20–)50–100 or more. Disc annular, villous, often 5-glandular. Style 4–7 mm, glabrous or hairy toward base. Drupe brown, oblong-globose, 7–10 × ca. 6 mm, apex with persistent erect calyx lobes. Fl. and fr. Apr–Dec.

Mixed forests; 400–3000 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangsu, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [Indonesia, Japan (Okinawa), Malaysia, Myanmar, Thailand, Vietnam].


微毛山矾  wei mao shan fan

Bobua wikstroemiifolia (Hayata) Kamehira & Sasaki; Dicalix wikstroemiifolius (Hayata) Migo; Symplocos micrachtra Handel-Mazzetti.

Shrubs or trees. Young branchlets, petioles, and leaf blades abaxially with minute appressed hairs. Leaves only toward end of twigs; petiole 3–10 mm; leaf blade narrowly elliptic, elliptic, narrowly obovate, or obovate, 4–12 × 1.5–4 cm, papery to thin leathery, base narrowly cuneate, margin entire or sinuate-dentate, apex mucronate-acuminate, acute, or obtuse; midvein adaxially flattened to slightly prominent, lateral veins 6–10 per side. Spikes 1–2 cm, with some branches, axis pubescent; bracts very soon deciduous, oblong to orbicular, 1.2–2 mm, pubescent, margin ciliate; bractlets very soon deciduous, pubescent. Flowers stamine or bisexual, probably androecious. Ovary ca. 0.5 mm in stamine flowers and 1–1.5 mm in bisexual flowers, glabrous or very fine appressed short hairy. Calyx lobes broadly ovate to nearly semi-ovaricolab., ca. 1 mm, margin ciliate, outer lobes sometimes appressed fine pubescent. Corolla 2–3 mm. Stamen 15–20 in stamine flowers, 5 and alternate with petals in bisexual flowers. Disc annular, glabrous or sparsely pilose. Style ca. 2 mm, glabrous, aborted in stamine flowers. Drupe ovoid, 1–1.2 cm × 6–8 mm, apex with persistent erect calyx lobes, endocarp with smooth surface. Seed curved; embryo curved. Fl. Mar, fr. Oct.

Mixed forests; 900–2500 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Taiwan, Yunnan, Zhejiang [Malaysia, Vietnam].


毛山矾  mao shan fan
Bobua groffii (Merrill) Migo; Dicalix groffii (Merrill) Migo; Symplocos lungtaensis Merrill; S. mollipila H. L. Li.

Shrubs or small trees to 6 m tall. Young branchlets, petioles, leaf blade midveins adaxially, leaf blade lateral veins abaxially, and leaf blades grayish brown soft hairy to sub-tomentose. Petiole 2–4 mm; leaf blade elliptic, obovate-elliptic, or ovate, 5–8(–12) × 2–3(–5) cm, papery, pubescent, adaxially soon glabrescent, base broadly cuneate to rounded, margin recurved to revolute and entire or remotely sharply dentate, apex acuminate; midvein and lateral veins flat to adaxially slightly prominent, lateral veins 7–10(–12) per side. Inflorescence axes, bracts, bractlets, and ovaries appressed pubescent to sericous. Spikes or racemes 1 cm or shortened into a fascicle; bracts and bractlets triangular to subelliptic, 1(–2) mm. Pedicel 0–2 mm. Ovary ca. 1 mm. Calyx ca. 2 mm, less hairy than bractlets and ovary; lobes semi-orbicular, 0.8–1 mm. Corolla 3–6 mm. Stamens 50; filaments 4–8 mm. Disc 5-lobed, annular, surrounding style base. Style densely pubescent; bract and bractlets narrowly ovate, apex with persistent erect calyx lobes. Stone lengthwise discylindric, ca. 0.5 mm, glabrous. Drupe narrowly ovoid, 8–10 × 1×0.7–4.5 mm, apex minutely punctate glands. Ovary ca. 1 mm, glabrous. Calyx 2.5–3 mm, pubescent, lobes ovate. Corolla 3–5 mm. Stamens 25–30. Disc cylindric, with few hairs. Style ca. 3 mm, glabrous. Drupe ampulliform, 9–10 × ca. 4 mm, apex with persistent erect calyx lobes. Fl. Oct–Nov, fr. Jan–Feb.

* Mixed forests; 600–800 m. Hainan.


山矾 shan fan

Bobua austroasinensis Migo; Dicalix austroasinensis (Migo) Migo; D. botryanthus (Franchet) Migo; D. decorus (Hance) Migo; D. swinhoeanae (Hance) Migo; D. urceolariis (Hance) Migo; Symplocos botryantha Franchet; S. botryantha var. stenophylla Brand; S. caerulea H. Léveillé; S. caudata Wallich ex G. Don; S. caudata var. macrantha Handel-Mazzetti; S. caudata var. macrocalyx Handel-Mazzetti; S. cavaleriei H. L. L. elli.; S. decorata Hance; S. dolichostyllosa Y. F. Wu; S. fuboensis M. Y. Fang; S. leucophylla Brand; S. macrostoma Hayata; S. ovitabraceata Y. F. Wu; S. prunifolia Siebold & Zuccarini; S. punctata Brand; S. rachitricha Y. F. Wu; S. sasaki Hayata; S. somai Hayata; S. sozanensis Hayata; S. subcomnata Handel-Mazzetti; S. swinhoeana Hance; S. urceolariis Hance.

Trees. Young branchlets brown, usually glabrous. Petiole 2–10(–15) mm; leaf blade elliptic, narrowly ovate, or ovate, 2–10 × 0.7–4.5 cm, thin leathery, glabrous, sometimes abaxially hairy, base cuneate to rounded, margin slightly serrate, sinuolate-dentate, or rarely subentire, apex cuneate; lateral veins 4–8(–10) per side. Racemes 1–6(–9) cm, subglabrous, pilose, or pubescent; bracts and bractlets very soon deciduous, linear, broadly ovate, or obovate, densely pubescent, bracts 2–5 mm, bractlets 0.3–1.5 mm. Pedicel 0.1–1.3 cm. Ovary ca. 0.5 mm in stamine flowers and 1–1.5 mm in bisexual flowers, glabrous or very fine appressed short hairy. Calyx lobes triangular-ovate, 0.3–1.5 mm, glabrous or sparsely appressed hairy, margin ciliolate. Corolla white or yellow, probably lilac when young, 4–8 mm. Stamens 23–40. Disc glabrous, annular. Drupe ampulliform to ovoid, 6–10 × 3–6 mm, apex with persistent erect calyx lobes. Fl. Feb–Nov, fr. Apr–Nov.

* Mixed forests; 100–1800 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [Bhutan, India, Japan, Korea, Malaysia, Myanmar, Nepal, Thailand, Vietnam].


三裂山矾 san lie shan fan

Symplocos cordatifolia H. L. Li.

Shrubs to 2 m tall. Young branchlets, petioles, and leaf blades abaxially with spreading grayish yellow long hairs. Branchlets dark brown. Petiole 2–3 mm; leaf blade narrowly ovate to ovate, 3.5–9 × 1.5–3.5 cm, thin leathery, base cordate, margin sharply dentate, apex long cuneate-acute; lateral veins 4–11 per side. Spikes short, axis ca. 1 cm, 5–10-flowered, pubescent; bracts broadly ovate, ca. 1 mm,
submembranous, adaxially glabrous or sparsely fine hairy; bractlets ovate, ca. 1.5 mm, submembranous, adaxially glabrous or sparsely fine hairy, apex acute. Ovary ca. 1 mm, glabrous. Calyx glabrous; lobes 3, broadly ovate, 1.2–1.5 mm. Corolla ca. 3.5 mm, lobes 3. Stamens 15–30. Disc flat, annular, glabrous or with some hairs. Drupe narrowly ovoid, ca. 1 cm. Fl. and fr. May–Nov.

* Mixed forests; ca. 500 m. S Guangdong.


能高山矾 neng gao shan fan


Shrubs. Young branchlets puberulent, soon glabrescent. Petiole 2–3 mm; leaf blade oblong-ovate to obovate, 1–2.3 × 0.8–1.2 cm, leathery, glabrous, base broadly cuneate to obtuse, margin sparingly crenate, apex acute to rounded; lateral veins 3–5 per side. Spikes shortened to a fascicle, 1–3-flowered; bracts many, oblong to ovate, 2–4 mm, glabrous or minutely appressed puberulent, apex obtuse. Ovary ca. 0.5 mm, glabrous. Calyx glabrous; lobes ca. 2 mm. Corolla 2–3 mm. Stamens ca. 20. Disc cupular, glabrous. Style glabrous. Drupe narrowly ovoid, ca. 1 × 2 × 5 mm. Fl. and fr. Aug.

* Mixed forests; 3000–3200 m. Taiwan.


羊舌树 yang she shu

**Laurus glauca** Thunberg in Murray, Syst. Veg. ed. 14, 383. 1784; **Bobua glauca** (Thunberg) Nakai; **B. nerifolia** (Siebold & Zuccarini) Miers; **Dicalix wangii** Migo; **Symplocos grandis** Handel-Mazzetti; **S. koshunensis** Kanehira; **S. nerifolia** Siebold & Zuccarini.

Leaf blade abaxially papillate, reticulation coarse.

Mixed forests; 600–3000 m. Fujian, Guangdong, Guangxi, Hainan, Hunan, Sichuan, Taiwan, Yunnan, Zhejiang [India, Japan, Myanmar, Thailand, Vietnam].

10b. **Symplocos glauca** var. **epapillata** Nooteboom, Rev. Symloc. 198. 1975.

无乳突羊舌树 wu ru tu yang she shu

**Symplocos oblongeolata** Y. F. Wu.

Trees to 11 m tall. Branchlets black. Petiole 3–4 cm; leaf blade narrowly elliptic to narrowly obovate, 12–26 × 4–7 cm, thin leathery, glabrous, abaxially not papillate, base broadly cuneate to subrounded, margin entire, apex acuminate; lateral veins 11–14 per side. Spikes shortened to fascicles. Drupe narrowly ovoid, ca. 1.5 × 0.6 cm. Fl. and fr. Aug.

Mixed forests; ca. 1500 m. S Yunnan [Vietnam].

11. **Symplocos viridissima** Brand in Engler, Pflanzenr. IV. 242(Heft 6): 41. 1901.

绿枝山矾 lu zhi shan fan

**Dicalix lanceolatus** (Merrill) Migo; **Symplocos ascidiformis** Y. F. Wu; **S. lanceolata** Merrill.

Shrubs or trees, 3–6 m tall. Branchlets light green, usually with minute appressed hairs. Petiole 2–5(–7) mm; leaf blade light green when dry, oblong-elliptic, 3.5–13 × 1.5–4.5 cm, sparsely appressed thin hairy or abaxially glabrous, base cuneate, margin remotely glandular dentate, apex long caudate-acuminate; lateral veins (3 or)4–6(or 7) per side. Rachenes 0.8–2 cm, 5–8-flowered, with minute appressed hairs; bracts and bractlets persistent, ovate to triangular-ovate, puberulent, bracts 1–2 mm, bractlets 0.5–0.8 mm. Pedicel 0.5–3(–5) mm. Calyx lobes 0.5–1 mm, finely appressed pubescent to puberulent. Corolla 3–5 mm. Stamens 30–50. Disc cylindric to pulvinate, glabrous. Ovary 1–1.5 mm. Style ca. 5 mm. Drupe ampulliform, 7–10 × 3–5 mm, neck half as long to as long as belly, apex with persistent erect calyx lobes. Fl. Mar–May, fr. Jun–Sep.

Mixed forests; 600–1500 m. Guangdong, Guangxi, Guizhou, Hainan, Xizang, S Yunnan [NE India, Myanmar, Vietnam].


铁山矾 tie shan fan

Trees. Young branchlets yellowish green, glabrous; old branchlets dark gray. Petiole 0.5–1.5 cm; leaf blade ovate-elliptic to ovate, 5–8(–10) × 1.5–4 cm, membranous, glab-

**海南山矾 hai nan shan fan**

Trees to 15 m tall. Branchlets reddish brown, glabrous. Petiole 0.7–1.6 cm; leaf blade elliptic to elliptic-ovate, submembranous to papery, 6–10(–12) × 2.5–4 cm, glabrous, base cuneate to rounded, margin serrulate, apex acute; lateral veins 8–12 per side. Raceemess or spikes 3–6 cm, 6–10-flowered, axis sparsely pilose, calyx ovate, 1 mm, sparsely short-hairy, margin ciliate; bracts ovate, 0.5–0.8 mm, margin ciliate, glabrous. Ovary glabrous, 0.5–1 mm. Calyx glabrous; lobes ovate, 1.2–1.5 mm. Corolla 3–4 mm. Stamens 25–40; filaments 3–5 mm. Disc a lunular, glabrous. Drupes ellipsoid-cylindric, 6–12 × 3–5 mm. Fl. and fr. Jul–Aug.

* Mixed forests; 500–800 m. Guangdong, Hainan, Vietnam.


**海南山矾 hai tong shan fan**

Trees to 15 m tall. Branchlets reddish brown, glabrous. Petiole 0.7–1.6 cm; leaf blade elliptic to elliptic-ovate, submembranous to papery, 6–10(–12) × 2.5–4 cm, glabrous, base cuneate to rounded, margin serrulate, apex acute; lateral veins 8–12 per side. Raceemes or spikes 3–6 cm, 6–10-flowered, axis sparsely short-hairy, bracts early deciduous, broadly ovate, ca. 1 mm, sparsely short-hairy, margin ciliate; bracts ovate, 0.5–0.8 mm, margin ciliate, glabrous. Ovary glabrous, 0.5–1 mm. Calyx glabrous; lobes ovate, 1.2–1.5 mm. Corolla 3–4 mm. Stamens 25–40; filaments 3–5 mm. Disc glandular, glabrous. Drupes ellipsoid-cylindric, 1.2–1.5 cm × 4–5 mm, apex with persistent spreading calyx lobes. Fl. and fr. Jul–Nov.

* Mixed forests; 500–800 m. Guangdong, Hainan.


**腺叶山矾 xian ye shan fan**

Trees to 15 m tall. Branchlets reddish brown, glabrous. Petiole 0.7–1.6 cm; leaf blade elliptic to elliptic-ovate, submembranous to papery, 6–10(–12) × 2.5–4 cm, glabrous, base cuneate to rounded, margin serrulate, apex acute; lateral veins 8–12 per side. Raceemes or spikes 3–6 cm, 6–10-flowered, axis sparsely pilose, calyx ovate, 1 mm, sparsely short-hairy, margin ciliate; bracts ovate, 0.5–0.8 mm, margin ciliate, glabrous. Ovary glabrous, 0.5–1 mm. Calyx glabrous; lobes ovate, 1.2–1.5 mm. Corolla 3–4 mm. Stamens 25–40; filaments 3–5 mm. Disc glandular, glabrous. Drupes ellipsoid-cylindric, 1.2–1.5 cm × 4–5 mm, apex with persistent spreading calyx lobes. Fl. and fr. Jul–Nov.

* Mixed forests; 500–800 m. Guangdong, Hainan, Vietnam.


**橄榄山矾 gan lan shan fan**

Shrubs 3–3.5 m tall. Buds, young branchlets, petioles, and leaf blades abaxially with appressed hairs. Petiole 3–5 mm; leaf blade adaxially dark green and becoming olive green when dry, elliptic-ovate to ovate, 8–22 × 4.5–8.5 cm, papery, base cuneate to rounded, margin undulate to dentate, apex acumenate; lateral veins 7–15 per side. Spikes or glomerules 6–10 mm, grayish yellow pubescent; bracts broadly ovate, ca. 2 mm, apressed whitish pubescent; bracts ca. 1.5 mm, appressed whitish pubescent. Ovary ca. 1.5 mm, pubescent. Calyx ca. 1 mm, pubescent, lobes ovate, Corolla 3–4 mm. Stamens 20–35. Disc conic, pubescent. Drupes ovoid-elliptic, ca. 7 × 3–4 mm, pubescent, apex with persistent erect calyx lobes. Fl. and fr. Jul–Nov.

* Mixed forests; 400–1600 m. Guangdong, Hainan [Vietnam].
lateral veins 4–10 per side. Racemes 1.5–3 cm, with some branches from base, pubescent; bracts and bractlets ovate, mostly subglabrous, margin ciliate and with 2 punctate glands, bracts 1–3 mm, bractlets ca. 1 mm. Pedicel 2(–5) mm. Ovary 1–1.5 mm, minutely appressed puberulent. Calyx lobes broadly ovate, ca. 1 mm, subglabrous, margin ciliate. Corolla 3–5 mm. Stamens 30–40. Disc glabrous, with 5 glands. Drupe green to yellowish brown, blue-black at maturity, ellipsoid, 0.9–1.2 cm × 4–5 mm, puberulent, apex with persistent spreading calyx lobes. Fl. Apr–May, fr. May–Jun.

Mixed forests; 1000–2600 m. Guangdong, Guangxi, Guizhou, Hubei, Hunan, Sichuan, Xizang, Yunnan [Bhutan, India, Myanmar, Nepal, Vietnam].


Trees 3.5–5 m tall. Branchlets minutely brown puberulent, glabrescent. Petiole 8–10 mm; leaf blade narrowly elliptic to elliptic, 9–14 × 3.5–4.5 cm, membranous to nearly papery, base cuneate; lateral veins 11–13 per side. Racemes 8–12 mm; bracts early deciduous, oblong, ca. 2 mm; bractlets early deciduous, triangular-ovate, ca. 1 mm, margin membranous and ciliate. Ovary ca. 1.7 mm, glabrous. Calyx glabrous; lobes semi-ovulic, 1–1.5 mm. Corolla ca. 6 mm. Stamens ca. 110; anthers blue. Drupe ellipsoid, ca. 3 × 1 cm. Fl. Aug, fr. Dec.

* Mixed forests; 1800–2000 m. Xizang (Mêdog Xian), Yunnan (Gongshan).


长梗山矾 chang geng shan fan

Bobua modesta (Brand) Yamamoto; Symlocos eriostroma Hayata.

Shrubs. Branchlets glabrous. Petiole 1.5–4 mm; leaf blade ovate-elliptic to ovate, 2–8 × 1.2–3 cm, membranous to papery, glabrous, base cuneate to subrounded, margin serrulate, apex caudate-acuminate; lateral veins 5 or 6 per side, adaxially prominent. Racemes 3.5–4 cm, 3–7-flowered, glabrous or sparsely pubescent; bracts early deciduous, 1–1.5 mm, glabrous; bractlets early deciduous, triangular to semi-elliptic, 0.5–1 mm, glabrous or pilose, margin ciliate. Pedicel 3–15 mm. Ovary 1.2–2 mm, glabrous. Calyx glabrous; lobes semi-elliptic, ca. 1 mm, abaxially minutely glandular punctate, margin ciliate. Corolla 4–6 mm. Stamens 25–35. Disc annular to shallow cupular, glabrous. Drupe ovoid-ampulliform, ca. 1.2 cm × 4–5 mm. Fl. and fr. Nov.

* Mixed forests; ca. 1000 m. Taiwan.


坚木山矾 jian mu shan fan

Dicalix delavayi (Brand) Migo; D. forrestii (W.W. Smith) Migo; D. shunningensis Migo; Symlocos delavayi Brand; S. forrestii W.W. Smith; S. longipetiolata Rehder.

Trees to 8 m tall. Branchlets glabrous except for pubescent base of young shoots between bud scale scars. Petiole 1–2 cm; leaf blade elliptic to narrowly obovate, 7–12(–16) × 2.5–4.5 cm, leathery, glabrous, base cuneate, margin entire or inconspicuously sharply dentate, apex acuminate; lateral veins 9–12 per side, axially impressed. Racemes forming a globose cone in bud, becoming 6–9 cm, axis spreading yellowish brown villous, base surrounded by several glabrous leathery scales; bracts early deciduous, elliptic, boat-shaped, 5.9 × 3–7 mm, appressed pubescent to sericeous; bractlets early deciduous, linear to elliptic, 2.5–3 × ca. 1 mm, pubescent. Ovary 1–2 mm, glabrous. Calyx glabrous; lobes triangular-ovate, 1–1.5 mm. Corolla 4–6 mm. Stamens 40–50. Disc inconspicuous. Style base conic, minutely soft hairy to densely sericeous. Drupe ellipsoid, 5–12 × 3–7 mm, glabrous, apex with persistent erect calyx lobes. Fl. Mar–May, fr. Jul.

Slopes in mixed forests; 2100–3200 m. S Sichuan, Xizang, Yunnan [India, Myanmar, Nepal, Thailand, Vietnam].


珠仔树 zhu zi shu

Dicalix propinquis (Hance) Migo; Symlocos intermedia Brand; S. intermedia var. trichantha Handel-Mazzetti; S. macrostachya Brand; S. macrostachya var. ieduiii Brand; S. propinqua Hance.

Shrubs or small trees. Buds, young branchlets, petioles, and twigs brown pubescent. Petiole 0.7–1.5(–2) cm; leaf blade narrowly to broadly elliptic, 7–15(–22) × 1.5–5(–8) cm, leathery, glabrous or abaxially brown pubescent at least when young, base attenuate, cuneate, or rounded, margin entire or sparsely denticulate, apex acute to obtuse; lateral veins 4–9 (–12) per side. Racemes 4–10(–17) cm, densely yellowish brown pubescent; bracts early deciduous, ovate to broadly ovate, 2–4 mm, densely pubescent; bractlets early deciduous, ovate to rhombic, 2–3 mm, densely pubescent. Pedicel 1–4 (–8) mm. Ovary 1–1.5 mm, glabrous. Calyx 1.5–3 mm, glabrous; lobes broadly ovate to orbicular, 0.2–0.5 mm, margin ciliate. Corolla 4–6 mm. Stamens 80 or more. Disc short hairy to woolly, with 5 glands. Drupe ellipsoid, 8–11 × 4–10 mm, apex with persistent yellow erect calyx lobes. Fl. Dec–Apr, fr. Jun.

Mixed forests; 100–1600 m. Guangdong, Guangxi, Hainan, SW Sichuan, Yunnan [India, Myanmar, Thailand, Vietnam].


厚叶山矾 hou ye shan fan

Dicalix crassilimbus (Merrill) Migo.

Trees 5–30 m tall. Young branchlets grayish white, glabrous. Petiole 1.5–3 cm; leaf blade olive green when dry, elliptic to obovate, 6–14.5 × 3–7 cm, thick leathery, base broadly
cuneate to rounded, margin entire or sparsely denticulate, apex slightly acuminate; lateral veins 7–11 per side. Racemes 4–5 cm, axis glabrous; bracts early deciduous, suborbicular, 5–9 mm, glabrous, margin ciliate; bractlets early deciduous, glabrous. Pedicel 0.5–1 mm, glabrous. Ovary 1.5–2 mm, glabrous. Calyx ca. 1.8 mm, glabrous; lobes triangular-ovate, ca. 1.5 mm. Corolla 6–7 mm. Stamens 80–100. Disc glabrous. Drupe yellowish white, ellipsoid to ovoid, 1.5–2 cm × 6–8 mm, apex with persistent erect calyx lobes. Fl. Oct–Dec, fr. Jun–Jul.

* Mixed forests; 400–1000 m. Hainan.


**滇南山矾** *dian nan shan fan*

Trees. Branchlets slightly angled, glabrous or brown tomentose. Petiole 1.2–3 cm; leaf blade obovate-oblong to obovate, 15–25 × 5.5–10 cm, papery, glabrous or abaxially pubescent, base broadly cuneate, margin sparsely sharply denticulate, apex acuminate; lateral veins 6–11 per side. Racemes 3–4 cm long, conelike when young because of overlapping bracts; bracts early deciduous, scalelike, broadly ovate to circular, 5–8 mm in diam., strongly convex, almost semiglobose, densely appressed gray pubescent when young, soon glabrescent and light brown; bractlets 1–3 mm, similar to bracts. Pedicel 1–3 mm. Calyx glabrous; lobes suborbicular, 1–2 mm. Ovary 1–2 mm, glabrous. Corolla 6–9 mm. Stamens ca. 80, becoming slightly longer than corolla. Disc 5-glandular, pubescent. Drupe oblong-ellipsoid to ellipsoid, 1.4–2.4 cm × 5–9 mm, often slightly narrowed toward apex, apex with persistent erect calyx lobes. Fr. May–Aug.

1500–1700 m. Yunnan [India, Laos, Myanmar, Thailand, Vietnam].

1a. Branchlets glabrous .................... 23a. var. hookeri
1b. Branchlets brown tomentose ........... 23b. var. tomentosa

23b. Symplocos hookeri var. tomentosa

**沟槽山矾** *gou cao shan fan*

Dicalix hookeri (C. B. Clarke) Migo; Symplocos glandulosopunctata Y. F. Wu; *S. macrophylla* subsp. sulcata (Kurz) Nooteboom; *S. persistens* Huang & Y. F. Wu; *S. yunnanensis* Brand.

Trees. Branchlets and petioles densely long brown villose to tomentose. Petiole 4–13 mm; leaf blade narrowly elliptic to narrowly ovate, 9–18 × 3–6 cm, thin leathery, abaxially patent pubescent to minutely appressed pilose, base cuneate, margin glandular dentate, apex long acuminate; lateral veins 6–17 per side. Racemes 1.5–3 cm long, forming a cone in bud; bracts early deciduous, obovate, 3–5 mm, appressed pubescent; bractlets early deciduous, ovate, 1.5–4 mm, appressed pubescent. Ovary 1–1.5 mm, appressed sericeous to pubescent. Calyx with same indument as ovary; lobes oblong, 1.2–2.5 mm. Corolla ca. 4 mm. Stamens ca. 30. Disc 5-glandular, densely hairy to minutely hairy. Drupe cylindric to ellipsoid, 7–10 × 4 mm, apex with persistent erect calyx lobes. Fl. May–Nov, fr. Mar–Oct.

* Slopes in mixed forests; 1200–2300 m. Xizang (Mêdog Xian), S Yunnan.


**柔毛山矾** *rou mao shan fan*

Trees to 3 m tall. Young branchlets, petioles, leaf blades abaxially, and inflorescence axes spreading long brown pilose. Old branchlets dark brown. Petiole 5–8 mm; leaf blade narrowly elliptic, elliptic, or narrowly ovate, 7–12 × 2–3 cm, submembranous to thin papery, base cuneate to subcordate, margin sharply dentate, apex long acuminate; lateral veins 7–12 per side. Racemes from axils of leaves or from wood beneath them, 1.5–4 cm, with some branches from base; bracts oblong, 2–5 cm, long pilose, margin ciliate; bractlets persistent, narrowly ovate, ca. 2 mm, long pilose. Ovary ca. 1 mm, long pilose. Calyx glabrous or sparsely long pilose; lobes oblong, 1–1.5 mm. Corolla 4–6 mm. Stamens 40–70. Disc inconspicuous, glabrous. Drupe cylindric. Fl. May.

* Mixed forests; 1400–2400 m. S Xizang [Bangladesh, Bhutan, N India, Nepal].


光叶山矾 guang ye shan fan

*Bobua pseudolancifolia* Hatusima; *Dicalix pseudolancifolius* (Hatusima) Migo; *Symplocos artisanaensis* Hayata; *S. aurea* H. Lévêillé; *S. formosana* Brand; *S. fulvipes* (C. B. Clarke) Brand; *S. kwangsiensis* Merrill ex H. L. Li; *S. lancifolia* var. *fulvipes* B. C. Clarke; *S. lancifolia* var. *microcarpa* (Champion ex Bentham) Handel-Mazzetti; *S. latouchei* W. W. Smith ex Handel-Mazzetti; *S. microcarpa* Champion ex Bentham; *S. mollifolia* Dunn; *S. ovalifolia* Handel-Mazzetti; *S. pseudolancifolia* (Hatusima) Handel-Mazzetti; *S. suishariensis* Hayata; *S. taiheianzenisis* Mori; *S. trichoclada* Hayata; *S. trichoclada* var. *koshunensis* Mori.

Shrubs or trees, to 20 m. Buds, young branchlets, and inflorescence axes appressed to patent hairy. Branchlets dark brown, glabrescent. Petiole 1–5 mm; leaf blade ovate, elliptic, narrowly ovate, or narrowly elliptic, 2–10 × 1.5–4.3 cm, submembranous to papery, abaxially often sparsely appressed fine hairy, adaxially glabrous or rarely sparsely appressed fine hairy, base attenuate-cuneate, margin finely crenate to fine hairy, adaxially glabrous or rarely sparsely appressed fine hairy; leaf blade ± elliptic-ovate, 0.5–2 mm, pubescent; bractlets deciduous under fruit, triangular to broadly ovate, 0.5–1.5 mm, pubescent, margin ciliate. Ovary 0.5–1.5 mm, glabrous, sparsely appressed fine hairy, or pubescent. Calyx lobes ovate, 0.5–1.5 mm, appressed fine short hairy, apex rounded. Corolla 2.5–4 mm. Stamens 15–40. Disc short pilose to sericeous, rarely glabrous. Drupe ellipsoid to subglobose, 3–5 × 2–5 mm, apex with persistent calyx lobes. Fl. Mar–Nov, fr. Jun–Dec.

Mixed forests; 800–1400 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [India, Japan, Philippines, Vietnam].


越南山矾 yue nan shan fan

Shrubs or trees. Branchlets glabrous, puberulent, pubescent, or reddish brown tomentose. Petiole 0.4–2.5 mm; leaf blade narrowly elliptic, elliptic, or obovate-elliptic, 6–27 × 0.9–10 cm, abaxially glabrous, pubescent, or tomentose, base cuneate to rarely rounded, margin subentire to glandular dentate, apex acuminate to acute; lateral veins 6–14 per side. Spikes 3–15 cm, 3–5-branched from base, glabrous, pubescent, or tomentose on axes, bracts, and bractlets; bracts 1–3 mm; bractlets 1–2 mm. Ovary 0.5–2 mm, glabrous. Calyx lobes 1–3 mm, glabrous or pubescent. Corolla 3–5 mm. Stamens 30–80. Disc short pilose to sericeous, rarely glabrous. Drupe ellipsoid to subglobose, 5–7 × 4–5 mm, apex with persistent conic calyx lobes. Fl. Aug–Sep, fr. Oct–Nov.

Mixed forests; 800–1500 m. S Fujian, Guangdong, Guangxi, Hainan, Jiangxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [India, Indonesia, Japan, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam; Australia, Pacific Islands].

Within China *Symplocos cochinchinensis* is represented by two subspecies and four varieties: var. *cochinchinensis* and var. *philippinensis* belong to subs. *cochinchinensis*, while var. *laurina* and var. *angustifolia* belong to subs. *laurina*.

1a. Branchlets and leaf blades abaxially red-brown pubescent to tomentose, especially on veins .................. 28a. var. *cochinchinensis*

1b. Branchlets and leaf blades glabrous.

2a. Calyx lobes hairy, often enlarged in fruit and forming a conic beak; bracts and bractlets forming a calyxule hiding ovary ........... 28b. var. *philippinensis*

2b. Calyx lobes glabrous but margin often ciliate, not enlarged in fruit; bracts and bractlets not hiding ovary.

3a. Leaf blade ovate-elliptic to obovate-elliptic, 2–8 cm wide ............ 28c. var. *laurina*

3b. Leaf blade narrowly elliptic, 0.9–2 cm wide ................... 28d. var. *angustifolia*

28a. **Symplocos cochinchinensis** var. *cochinchinensis* 越南山矾(原变种) yue nan shan fan (yuan bian zhong)

*Dicalix cochinchinensis* Loureiro, Fl. Cochinch. 2: 663. 1790; *D. javanicus* Blume; *Symplocos cochinchinensis* subsp. *cochinchinensis* var. *puberula* Huang & Y. F. Wu; *S. ferruginea* Roxburgh; *S. ferruginifolia* Kanehira.


Mixed forests; 800–1500 m. S Fujian, Guangdong, Guangxi, Hainan, Jiangxi, Sichuan, Taiwan, Xizang, Yunnan, Zhejiang [India, Indonesia, Japan, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam].


兰屿山矾 lan yu shan fan

*Symplocos ferruginea* Roxburgh var. *philippinensis* Brand, Philipp. J. Sci. 3: 6. 1908; *Bobua kotoensis* (Hayata) Yamamoto; *S. kotoensis* Hayata.

Branchlets glabrous. Petiole 1–2.5 cm. Leaf blade ± elliptic, 5–13 × 2.5–5.5 cm, glabrous or midvein abaxially fine hairy; lateral veins 5–10 per side. Inflorescence axes and bracts tomentellous to pubescent; bracts and bractlets forming a calyxule hiding ovary. Calyx appressed pubescent, lobes ca. 1 mm. Drupe globose, 4–6 mm.

Taiwan (Lan Yu) [Indonesia, Philippines].

狭叶山矾 xia ye shan fan


Shrubs to 2 m tall. Young branchlets green, angled, glabrous; old branchlets brown. Petiole 4–8 mm; leaf blade narrowly elliptic, 7–15 × 0.9–2 cm, glabrous. Calyx lobes glabrous but margin often ciliate, not enlarged in fruit; bracts and bractlets not hiding ovary. Fl. May, fr. Jul–Nov.

Mixed forests; 300–500 m. Hainan [Vietnam].


少脉山矾 shao mai shan fan

Shrubs. Branchlets glabrous; buds pubescent. Petiole 5–7 mm; leaf blade narrowly elliptic, 4–8 × 1–3 cm, glabrous, base narrowly cuneate, apex slightly acuminate; lateral veins 3–5 per side. Racemes 3–5 cm, brown pubescent; bracts early deciduous, oblong, 3–4 mm, puberulent, glandular punctate; bractlets early deciduous, ca. 1.5 mm, puberulent. Ovary ca. 1 mm, glabrous. Calyx pubescent; lobes oblong, ca. 1.5 mm, slightly connate at base, glandular punctate. Corolla 5–6 mm. Stamens 20–25. Disc pilose, glandular. Style ca. 4 mm. Drupe not seen. Fl. Sep.


腺缘山矾 xian yuan shan fan

Symplocos macrophylla Wallich ex de Candolle subsp. sulcata (Kurz) Nootenboom var. glandulifera (Brand) Nootenboom.

Trees. Buds and young branchlets tomentose. Petiole ca. 2 cm; leaf blade narrowly elliptic, 10–20 × 2.5–5.5 cm, thin leathery, abaxially with cobwebby hairs when young, glabrescent, base cuneate, margin finely glandular dentate with more than 6 glands per cm, apex acuminate; lateral veins 7–12 per side and adaxially impressed. Inflorescences glomerules; bracts and bractlets persistent, orbicular, 2.5–3 mm in diam., tomentose. Ovary ca. 1.5 mm, tomentose. Calyx tomentose; lobes oblong, ca. 2 mm, slightly shorter than tube. Corolla 5–6 mm. Stamens ca. 40. Disc pulvinate, pilose. Drupe subcylindric, ca. 10 × 4 mm, apex with persistent erect calyx lobes. Fl. and fr. Feb–Oct.

* Slopes in mixed forests; 1400–2000 m. Guangxi, Hunan, Yunnan.


团花山矾 tuan hua shan fan

Dicalix glomeratus (King ex C. B. Clarke) Migo; Symplocos wenshanensis Huang & Y. F. Wu; S. yizhangensis Y. F. Wu.

Shrubs or small trees. Branchlets glabrous or tomentellous, soon glabrescent. Petiole 0.5–2.5 cm, without glands to rarely densely glandular in 2 rows; leaf blade narrowly elliptic to elliptic, 14–19 × 2–4.5 cm, subleathery, glabrous, base cuneate to broadly cuneate, margin glandular dentate, apex acuminate; lateral veins 10–17 per side, adaxially impressed. Inflorescences glomerules; bracts and bractlets persistent, tomentose, bracts 1–3 mm, bractlets 1–2 mm. Ovary ca. 1 mm, glabrous. Calyx lobes 1–2 mm, glabrous, margin ciliate. Corolla 4–5 mm. Stamens ca. 30. Disc cylindric, ca. 1 mm, glabrous. Drupe cylindric, 7–10 × ca. 3 mm. Fl. Jul–Oct, fr. Aug–Dec.

Mixed forests; 1200–2700 m. Fujian, N Guangdong, Hunan, Jiangxi, Xizang, Yunnan, Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

28a. Symplocos cochinchinensis var. laurina (Retzius) Migo; D. laurinus (Retzius) Migo; D. schaefferae (Merrill) Migo; D. terminalis (Brand) Migo; D. theophrastrofolia (Siebold & Zuccarini) Migo; D. bodinieri var. Eurya cavaleriei (Kurz) Nooteboom, Rev. Symploc. 158. 1975.

Myrtus laurina Retzius, Observ. Bot. 4: 26. 1786; Bobua divaricativena (Hayata) Kanehira & Sasaki; Dicalix bodinieri (Brand) Migo; D. laurinus (Retzius) Migo; D. schaefferae (Merrill) Migo; D. terminalis (Brand) Migo; D. theophrastrofolia (Siebold & Zuccarini) Migo; D. bodinieri var. Eurya cavaleriei (Kurz) Nooteboom.

Shrubs to 2 m tall. Young branchlets green, angled, glabrous; old branchlets brown. Petiole 0.5–2.5 cm, without glands; leaf blade narrowly elliptic to obovate-elliptic, 6–21 × 2–8 cm, leathery, glabrous. Bracts and bracteoles persistent, orbicular, 1–2 mm, shorter than tube. Stamens ca. 30. Drupe globose, 4–6 mm in diam., apex with persistent erect calyx lobes. Fl. Aug–Dec, fr. Mar–Jun.

Mixed forests; 200–3000 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangsu, Jiangxi, Sichuan, Taiwan, Yunnan, Zhejiang [Bhutan, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam].


团花山矾 tuan hua shan fan


Dicalix glomeratus (King ex C. B. Clarke) Migo; Symplocos wenshanensis Huang & Y. F. Wu; S. yizhangensis Y. F. Wu.

Shrubs or small trees. Branchlets glabrous or tomentellous, soon glabrescent. Petiole 0.5–2.5 cm, without glands to rarely densely glandular in 2 rows; leaf blade narrowly elliptic to elliptic, 14–19 × 2–4.5 cm, subleathery, glabrous, base cuneate to broadly cuneate, margin glandular dentate, apex acuminate; lateral veins 10–17 per side, adaxially impressed. Inflorescences glomerules; bracts and bractlets persistent, tomentose, bracts 1–3 mm, bractlets 1–2 mm. Ovary ca. 1 mm, glabrous. Calyx lobes 1–2 mm, glabrous, margin ciliate. Corolla 4–5 mm. Stamens ca. 30. Disc cylindric, ca. 1 mm, glabrous. Drupe cylindric, 7–10 × ca. 3 mm. Fl. Jul–Oct, fr. Aug–Dec.

Mixed forests; 1200–2700 m. Fujian, N Guangdong, Hunan, Jiangxi, Xizang, Yunnan, Bhutan, India, Sikkim.
ally appressed pilose to tomentose, base broadly cuneate to rounded, margin glandular dentate with 6–12 glands per cm, apex acuminate; lateral veins 6–14 per side, adaxially impressed. Inflorescences glomerules; bracts suborbicular, 2–3 mm in diam., tomentose at least toward apex, margin with large glands; bractlets elliptic, ca. 2 mm, tomentose at least toward apex, margin with small glands. Ovary 0.5–1 mm, glabrous. Calyx lobes semi-orbicular, 1.5–2 mm, glabrous, sometimes margin ciliate. Corolla 3–5 mm. Stamens 20–50. Disc cylindric, 0.5–1 mm, glabrous. Drupe cylindric, 0.8–1.3 cm × 2.5–3 mm, apex with persistent erect calyx lobes. Fl. Nov–Dec, fr. Jul–Aug.


* Mixed forests; 500–1800 m. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Yunnan.

33a. Symplocos stellaris var. stellaris

老鼠矢 lao shu shi

Shrubs or small trees. Buds and young branchlets reddish brown tomentellous or glabrous, soon glabrescent. Petiole 1–3 cm; leaf blade narrowly oblong-elliptic to narrowly obovate, 6–23 × 1.8–5 cm, thick leathery, glabrous, abaxially smooth, often light colored, subglaucescent, base broadly cuneate to rarely subrounded, margin entire or rarely glabrous denticulate, apex mucronate-acuminate to acute; midvein, lateral veins, and reticulate veins abaxially inconspicuous, adaxially impressed, lateral veins 7–15 per side. Inflorescences glomerules or condensed spikes; bracts and bractlets persistent, 2–3.5 mm, densely tomentose or glabrous with ciliate margin. Ovary 1–1.5 mm, glabrous. Calyx 1.5–2 mm; lobes semi-oriicular, 0.5–1 mm, glabrous or rarely woolly tomentose, margin ciliate. Corolla 5–8 mm, apically ciliate. Stamens 18–50. Disc cylindric, ca. 0.5 mm, glabrous. Drupe narrowly ovoid-cylindric, ca. 1 cm, apex with persistent erect calyx lobes. Fl. Feb–May, fr. Jun–Sep.

1000–2000 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Jiangsu, Sichuan, Taiwan, Yunnan, Zhejiang [Japan (Okinawa)].

1a. Twigs and bud-scales tomentellous; leaf blade margin entire, strongly revolute; stamens 18–25; bracts and bractlets densely tomentose

33b. Symplocos stellaris var. aenea

铜绿山矾 tong lu shan fan


Twigs glabrous; bud-scales glabrous or hairy only toward margin. Leaf blade often somewhat obovate, margin denticulate, apical acumen ca. 1.5 cm, reticulate veins very coarse and abaxially slightly prominent. Bracts and bractlets glabrous except for ciliate margin. Stamens ca. 50. Fl. Feb–May, fr. Jun–Sep.

* Mixed forests; 1000–2000 m. S Sichuan, Yunnan.


卷毛山矾 juan mao shan fan

Trees to 7 m tall. Buds, young petioles, and young leaf blades abaxially reddish brown tomentose. Young branchlets densely brown villous; old branchlets glabrous. Petiole 1–1.8 cm; leaf blade narrowly elliptic to narrowly obovate, 7–15 × 2.5–5.5 cm, thick leathery, base broadly cuneate to rounded, margin entire, apex acute to rounded; lateral veins 8–13 per side, adaxially impressed. Inflorescences glomerules; bracts and bractlets persistent, 3 mm in diam., with dense long hairs. Ovary 1–1.5 mm, glabrous. Calyx glabrous; lobes oblong, 1.5–2 mm. Corolla ca. 6 mm. Stamens 35–50. Disc annular, glabrous. Drupe cylindric, ca. 1 cm, apex with persistent erect calyx lobes 2.5–3 mm. Fl. and fr. Apr–Nov.

* Slopes in mixed forests; 900–1100 m. Fujian, Guangdong.


福建山矾 fu jian shan fan

Trees to 3 m tall. Buds and young branchlets tomentose; old branchlets glabrous. Petiole 1.5–2 cm, tomentose; leaf blade oblong to oblong-elliptic, 7–10 × 2.5–4 cm, thick papery, abaxially woolly villous, base broadly cuneate, margin entire, apex short acuminate to acute; lateral veins 7 or 8 per side. Inflorescences glomerules; bracts and bractlets persistent, spatulate to orbicular, ca. 2 mm, brown tomentose. Ovary ca. 1 mm, glabrous. Calyx brown tomentose, lobes orbicular. Corolla yellow, ca. 4 mm. Stamens ca. 40. Disc annular, glabrous. Drupe ellipsoid, ca. 1 cm. Fl. Jun, fr. Aug.

* Mixed forests; ca. 900 m. Fujian.


长毛山矾 chang mao shan fan

Symplocos indochinensis H. L. Li; S. kwangtungensis H. L. Li.
Trees to 12 m tall. Young branchlets with a mixed indument of short hairs and slender hairs 2.5–3 mm. Petiole 4–7 mm; leaf blade elliptic, oblong-elliptic, or ovate-elliptic, 6–15.5 × 2–5.5 cm, papery, abaxially with bulbous-based dense patent soft hairs, adaxially long pilose but often soon glabrescent, base acute to cordate, margin entire or minutely denticulate, apex acuminate; lateral veins 4–8 per side, adaxially impressed. Inflorescences glomerules, 6–8-flowered; bracts and bractlets persistent, ovate to triangular broadly ovate, 1–2 mm, sparsely to densely appressed pubescent. Ovary 1–2 mm, glabrous. Calyx lobes oblong to ovate, 1–1.5 mm, glabrous or sparsely appressed pubescent. Corolla 3–4 mm. Stamens ca. 30. Disc flat or annular, with 5 epipetalous glands, pilose. Drupe green, subglobose, ca. 5 × 5 mm, apex with persistent erect calyx lobes. Fl. and fr. Jul–Nov.

* Mixed forests; 200–1500 m. Fujian, Guangdong, Guangxi, Hainan, Hunan, Jiangxi, Taiwan, Yunnan, Zhejiang.


丛花山矾 丛花山矾

**Dicalex chunii** (Merrill) Migo; **D. poilanei** (Guillaumin) Migo; **Symplocos chunii** Merrill; **S. fasciculiflora** Merrill; **S. glomerata** King ex C. B. Clarke subsp. congesta (Bentham) Nooteboom var. poilanei (Guillaumin) Nooteboom; **S. spatulata** H. L. Li.

Shrubs or small trees. Young branchlets glabrous; calyx deeply imbri
cateRD. Inflorescences glomerules or much reduced spikes, to 1.5 cm, in axes of leaves and many from wood between whorls of leaves, axis tomentose-pubescent; bracts and bractlets persistent, ovate to suborbicular, tomentose, brown glandular punctate, margin ciliolate. Ovary ca. 1 mm, glabrous. Calyx glabrous; tube ca. 0.5 mm; lobes ovate to suborbicular, ca. 1.5 mm, margin sometimes sparsely ciliate. Corolla ca. 4 mm. Stamens 40–60 or more. Disc low cylindric to annular, glabrous. Drupe cylindric, 6–8 × ca. 3 mm, apex with persistent erect calyx lobes. Fl. Jan–Sep, fr. Oct–May.

Mixed forests; 300–2000 m. Guangdong, Guangxi, Hainan [Vietnam].


白樱 白樱

**Prunus paniculata** Thunberg in Murray, Syst. Veg. ed. 14, 463. 1784; **Cotoneaster coreanus** H. Lévéeillé; **Myrtus chinensis** Loureiro; **Palauro chinensis** (Loureiro) Koidzumi; **P. chinensis** var. pilosa Nakai; **P. sinica** (Ker Gawler) Miers; **Prunus mairei** H. Lévéeillé; **Symplocos chinensis** (Loureiro) Druce; **S. chinensis** var. vestita (Hemsley) Handel-Mazzetti; **S. crataegoides** Buchanan-Hamilton ex D. Don; **S. hunanensis** Handel-Mazzetti; **S. simaoensis** Qian Yi-yong; **S. sinica** Ker Gawler; **S. sinica** var. vestita Hemsley.

Shrubs or small trees, deciduous. Young branchlets glabrous or ± pilose; old branchlets glabrous. Petiole 3–7 mm; leaf blade ovate, elliptic-obovate, or broadly obovate, usually slightly rhombic, 1.5–11 × 1–5.5 cm, membranous to thin papery, abaxially glabrous or pubescent, adaxially glabrous or appressed hairy, base broadly cuneate to subcordate, margin sharply glandular dentate, apex acuminate to acute; lateral veins 4–10 per side. Panicles terminal, consisting of a raceme of cymose corymbs, 2–10 cm; bracts early deciduous, usually linear, 1(–3) mm, brown glandular. Pedicel 0–10 mm, slender,
thickened in fruit, articulate at apex. Ovary obconic, 1–1.5 mm, glabrous or hairy, 2-locular; ovules 4 per locule. Calyx lobes light yellow, ovate to semi-orbicular, 1–1.5 mm, sometimes abaxially hairy, margin ciliate. Corolla 3–6 mm. Stamens 25–60. Disc 5-glandular, glabrous or hairy. Drupe bluish, rarely white, ovate-globose, 3–8 mm. Fl. Apr–Jun, fr. Sep–Nov.

Slopes in mixed forests; 800 –2500 m. Anhui, Fujian, Guangdong, Guangzhou, Guizhou, Hainan, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Jilin, Liaoning, Nei Mongol, Ningxia, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Yunnan, Xizang, Zhejiang [Bhutan, India, Laos, Myanmar, Vietnam].


吊钟山矾 (原变种)  diao zhong shan fan (yuan bian zhong)

Symplocos punctulata Masamune & Syozi.


Mixed forests; ca. 900 m. S Hainan [India, Malaysia].


南岭山矾 nan ling shan fan


Mixed forests; 500–1600 m. Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Taiwan, Yunnan, Zhejiang [India, Japan, Malaysia, Myanmar, Vietnam].

42. Symplocos spectabilis Brand in Engler, Pflanzenr. IV. 242(Heft 6): 69. 1901.

绿春山矾 lu chun shan fan

Trees to 7 m tall. Twigs ca. 1 cm in diam. Petiole 2.5–3 cm, glabrous; leaf blade obovate, ca. 17 × 5–7 cm, thin leathery, glabrous, base cuneate to rarely rounded and narrowing into petiole, margin entire or denticulate, recurved, and cartilaginous, apex short acuminate; midvein abaxially very prominent, adaxially impressed; lateral veins 14–18 per side, anastomosing toward margin or a faint intramarginal vein present, reticulate veins transverse to lateral veins, reticulation coarse and slightly prominent abaxially. Fascicles many, dense, from wood beneath leaves; bracts 3–4 mm, tomentose; bractlets 2–3 mm, tomentose. Ovary glabrous, 0.5–1 mm. Calyx ca. 1.5 mm, glabrous; lobes semi-orbicular, ca. 1 mm, margin ciliate. Corolla 5–7 mm. Stamens ca. 25, to 9 mm long. Disc glabrous, annular. Style glabrous, ca. 7 mm. Fruit not known.

Woods, often on steep slopes; ca. 2300 m. Yunnan [Myanmar].