
_Acmena_ Candolle; _Caryophyllus_ Linnaeus (1753), not Miller (1754); _Cleistocalyx_ Blume; _Jambosa_ Adanson, nom. cons.

Trees or shrubs. Branchlets sometimes 2–4-ridged, usually glabrous. Leaves opposite or sometimes whorled, petiolate to sub-sessile; leaf blade densely to sometimes sparsely pinnately veined. Inflorescences terminal or axillary, usually panicles of cymes, 3- to many-flowered; bracts small, caducous after flowering. Flowers stipitate or not. Hypanthium obconic or sometimes clavate. Calyx lobes 4 or 5 or rarely more, usually short, caducous or persistent, apex usually obtuse, rarely connate and then calyptrate. Petals 4 or 5 or rarely more, distinct and then expanding separately or coherent and then caducous as a unit. Stamens numerous, distinct but occasionally slightly adhering at base; anthers minute, versatile, 2-celled, cells parallel or divergent, dehiscing longitudinally or by a short terminal slit; connectives usually terminating in an apical gland. Ovary inferior, 2 or 3-loculed; ovules many per locule. Style linear. Fruit drupaceous, 1(or 2)-seeded. Seeds sometimes with or without a testa, often with a pseudotesta ± adhering to pericarp, rarely with intrusive branching tissue extending into and interlocking cotyledons; embryo usually uniembryonic, sometimes poly-embryonic.

About 1200 species: tropical Africa, subtropical to tropical Asia, Australia, New Caledonia, New Zealand, Pacific islands; 80 species (45 endemic, two introduced) in China.


In addition to the cultivated species treated here, both _Syzygium aquum_ (N. L. Burman) Alston (_Eugenia aqua_ N. L. Burman) and _S. grande_ (Wight) Walpers (_E. grandis_ Wight) have been recorded as being cultivated in China.

**Key based on flowering material**

Flowers are not known in _Syzygium albu_um, _S. basfolioideum_uch, _S. guangxiense_ , _S. hainanense_ , _S. jienfunicum_ , _S. lasianthifolium_ , _S. melanophyllum_ , and _S. wenhanaese_.

1a. Calyx calyptrate.

2a. Leaf blade oblong to elliptic, secondary veins 8 or 9 on each side of midvein; inflorescences axillary ............... 2. _S. nervosum_

2b. Leaf blade ovate to obovate, secondary veins 2–5 on each side of midvein; inflorescences terminal .... 3. _S. conspersipunctatum_

1b. Calyx lobes distinct.

3a. Petals coherent, falling as a cap at anthesis.

4a. Inflorescences axillary or lateral below leaves.

5a. Branchlets quadrate or quadrangular.

6a. Hypanthium clavate.

7a. Hypanthium ca. 2 cm .......................................................... 15. _S. taiwanicum_

7b. Hypanthium to 1.2 cm.

8a. Branchlets grayish white when dry; petiole 2–3 mm ......................................................... 16. _S. championii_

8b. Branchlets blackish brown when dry; petiole 9–14 mm ....................................................... 42. _S. rockii_

6b. Hypanthium obconic or pyriform, not clavate.

9a. Branchlets gray or grayish white when dry.

10a. Leaf blade narrowly elliptic .......................................................... 29. _S. salwinense_

10b. Leaf blade elliptic, obovate, obovate-elliptic, or oblong.

11a. Leaf blade 12–18 cm ............................................................. 25. _S. tetragonum_

11b. Leaf blade 4.5–6 cm ................................................................ 72. _S. formosanum_

9b. Branchlets blackish brown or dark brown when dry.

12a. Petiole 3–6 mm ................................................................. 30. _S. sterrophyllum_

12b. Petiole 10–18 mm.

13a. Flower buds ca. 5 mm; calyx lobes inconspicuous .......................................................... 31. _S. forrestii_

13b. Flower buds 8–9 mm; calyx lobes 1–1.5 mm ............................................................. 42. _S. rockii_

5b. Branchlets terete or compressed.

14a. Hypanthium clavate or shortly clavate.

15a. Style 15–20 mm .............................................................. 21. _S. claviflorum_

15b. Style 3–5 mm.

16a. Leaf blade intramarginal veins 3–4 mm from margin; hypanthium 6–8 mm ...................... 20. _S. baviense_

16b. Leaf blade intramarginal veins near margin; hypanthium 10–12 mm.

17a. Leaf blade secondary veins at an angle of ca. 75° from midvein, apex acute .................... 18. _S. rysopodum_

17b. Leaf blade secondary veins at an angle of ca. 40° from midvein, apex acuminate .......... 19. _S. steno cladum_
4b. Inflorescences terminal.


18a. Leaf blade intramarginal veins 2–3 mm from margin.

19a. Branchlets grayish white when dry; secondary veins 11–13 on each side of midvein .......... 27. S. balsameum

19b. Branchlets light brown when dry; secondary veins 8 or 9 on each side of midvein .......... 46. S. simile

18b. Leaf blade intramarginal veins usually 1(–1.5) mm or less from margin.

20a. Petiole 3–5 mm; stamens 7–8 mm ................................................................. 50. S. kwangtungense

20b. Petiole 7–20 mm; stamens 3–6 mm.

21a. Branchlets grayish white or gray when dry.

22a. Leaf blade 6–12 cm ................................................................. 57. S. cumini

22b. Leaf blade 4.5–6 cm ................................................................. 72. S. formosanum

21b. Branchlets dark brown, blackish brown, red, or brown when dry.

23a. Leaf oil glands sparse ..................................................................................... 31. S. forrestii

23b. Leaf oil glands numerous.

24a. Leaf blade 4–7 × 2.4–3.5 cm ........................................................................ 56. S. rehderianum

24b. Leaf blade 9–12 × 4–6 cm ............................................................................ 76. S. oblatum

4b. Inflorescences terminal.


26a. Leaf blade secondary veins 6–10 mm apart .......................................................... 11. S. austroyunnanense

26b. Leaf blade secondary veins to 3 mm apart.

27a. Branchlets terete or compressed.

28a. Leaf blade secondary veins at an angle of ca. 75° from midvein; branchlets brown when dry ...... 18. S. rysopodum

28b. Leaf blade secondary veins at an angle of ca. 40° from midvein; branchlets grayish white when dry ......................................................................................................................... 19. S. stenocladum

27b. Branchlets quadrate or quadrangular.

29a. Petiole 2–3 mm; branchlets grayish white when dry; leaf blade adaxially dull when dry ........ 17. S. championii

29b. Petiole ca. 10 mm; branchlets blackish brown when dry; leaf blade adaxially glossy when dry .......... 42. S. rockii

25b. Hypanthium obconic, funnel-shaped, or campanulate.

30a. Branchlets quadrate or 4-angled or quadrangular.

31a. Leaf blade secondary veins 6–10 mm apart .......................................................... 11. S. austroyunnanense

31b. Leaf blade secondary veins to 3 mm apart.

32a. Petiole ca. 10 mm; leaf blade elliptic to ovobate.

33a. Branchlets blackish brown when dry; leaf blade 8–10 cm ..................................................... 42. S. rockii

33b. Branchlets grayish white when dry; leaf blade 5–6 cm ........................................................... 68. S. euphlebium

32b. Petiole to 5 mm; leaf blade ovate-lanceolate, linear, or narrowly oblong.

34a. Leaf blade ovate-lanceolate, base slightly cordate ................................................................ 32. S. tephrodes

34b. Leaf blade linear to narrowly oblone, base rounded to slightly obtuse ..................................... 36. S. soongii

30b. Branchlets terete or compressed.

35a. Leaf blade base rounded to slightly cordate ........................................................................ 51. S. bullockii

35b. Leaf blade base cuneate, obtuse, or attenuate.

36a. Petiole to 5 mm.

37a. Leaf blade apex obtuse to rounded.

38a. Stamens 4–8 mm.

39a. Leaf blade elliptic to narrowly elliptic, 5–8 cm, base broadly cuneate to obtuse ........ 50. S. kwangtungense

39b. Leaf blade elliptic to ovobate-oblong, 3–5 cm, base cuneate ............................................. 52. S. paucivenium

38b. Stamens to 3 mm.

40a. Leaf blade secondary veins 6–9 mm apart ................................................................. 23. S. cinereum

40b. Leaf blade secondary veins to 3 mm apart ........................................................................ 70. S. howii

37b. Leaf blade apex acute, acuminate, or cactus-acuminate.

41a. Leaf blade secondary veins at an angle of 40°–45° from midvein.

42a. Leaf blade 3–7 cm, abaxially olive green when dry .......................................................... 47. S. odoratum

42b. Leaf blade 8–12 cm, abaxially pale brown when dry .......................................................... 55. S. myrsinifolium

41b. Leaf blade secondary veins at an angle of more than 50° from midvein.

43a. Hypanthium ca. 3 mm; petals 2–3 mm ........................................................................ 50. S. kwangtungense

43b. Hypanthium 4–5 mm; petals ca. 5 mm ............................................................................ 76. S. oblatum

36b. Petiole more than 5 mm.

44a. Leaf blade secondary veins at an angle of 40°–45° from midvein.

45a. Leaf blade secondary veins 6–9 mm apart; hypanthium ca. 3.5 mm ............................... 23. S. cinereum

45b. Leaf blade secondary veins ca. 1.5 mm apart; hypanthium 4–7 mm ................................... 55. S. myrsinifolium

44b. Leaf blade secondary veins at ca. 60° or more from midvein.

46a. Leaf blade apex usually obtuse to slightly acuminate.
   47a. Petiole 1.5–2 cm; leaf blade 6–8 cm ................................................................. 54. S. densinervium
   47b. Petiole 0.8–1.2 cm; leaf blade 4.5–6 cm ............................................................. 72. S. formosanum

46b. Leaf blade apex acuminate.
   48a. Hypanthium ca. 2 mm; secondary veins less than 1 mm apart ....................... 49. S. chunianum
   48b. Hypanthium 3–5 mm; secondary veins more than 2 mm apart.
       49a. Leaf blade 5–6 cm ................................................................. 68. S. euphlebium
       49b. Leaf blade 9–14 cm.

50a. Leaf blade base rounded to broadly cuneate ................................................ 76. S. obtatum

50b. Leaf blade base cuneate.
       51a. Leaf blade oblong to ovate-lanceolate, abaxially dark brown when dry .......... 45. S. kusukusense
       51b. Leaf blade elliptic, abaxially green when dry ............................................. 53. S. toddalioides

3b. Petals distinct.

52a. Inflorescences axillary or lateral below leaves.

53a. Branchlets quadrate or quadrangular.

54a. Hypanthium clavate, 1.3–2 cm.

55a. Petiole 4–5 mm; leaf blade base broadly cuneate; hypanthium ca. 2 cm .................. 15. S. taiwanicum

55b. Petiole very short (leaves sometimes nearly sessile); leaf blade base usually slightly cordate;

   hypanthium ca. 1.3 cm .............................................................................. 17. S. boisianum

54b. Hypanthium not clavate, less than 0.8 cm.

56a. Petiole to 5 mm.

57a. Leaf blade apex acuminate .............................................................................. 34. S. temuirhachis

57b. Leaf blade apex obtuse to slightly acute .................................................................. 38. S. grijsii

56b. Petiole more than 7 mm.

58a. Leaf blade secondary veins 8–10 mm apart, apex slightly acute ......................... 13. S. cathayense

58b. Leaf blade secondary veins 2–3 mm apart or dense, apex acuminate.

59a. Flower buds ca. 5 mm .................................................................................. 31. S. forrestii

59b. Flower buds 8–9 mm .................................................................................. 42. S. rockii

53b. Branchlets terete or compressed.

60a. Leaf blade apex obtuse, rounded, or acute.

61a. Leaf blade secondary veins more than 6 mm apart.

62a. Style 4–5 mm ...................................................................................... 28. S. xizangense

62b. Style 15–30 mm.

63a. Leaf blade secondary veins 8–12 on each side of midvein ............................... 5. S. polypetaloides

63b. Leaf blade secondary veins 14–25 on each side of midvein.

64a. Petals 10–13 mm .................................................................................. 6. S. samarangense

64b. Petals ca. 3 mm .................................................................................. 21. S. claviflorum

61b. Leaf blade secondary veins to 5 mm apart.

65a. Petiole 9–14 mm.

66a. Hypanthium broadly obconic, ca. 1 cm; stamens 10–13 mm ......................... 12. S. malaccense

66b. Hypanthium clavate, 1–1.2 cm; stamens 1–4 mm ............................................. 18. S. rysopodum

65b. Petiole to 7 mm.

67a. Petals ca. 1 mm; hypanthium ca. 1.5 mm .................................................................. 61. S. hancei

67b. Petals 2.5–4 mm; hypanthium 3–3.5 mm.

68a. Petiole ca. 2 mm; leaf blade linear-lanceolate .................................................. 59. S. fluviatile

68b. Petiole 5–7 mm; leaf blade elliptic to ovate-elliptic ............................................. 74. S. levinei

60b. Leaf blade apex acuminate.

69a. Petals 8–15 mm.

70a. Hypanthium clavate .................................................................................. 19. S. stenocladum

70b. Hypanthium obconic.

71a. Stamens ca. 0.6 cm .................................................................................. 31. S. forrestii

71b. Stamens 1.5–2.8 cm.

72a. Calyx lobes 5–8 mm; secondary veins 8–25 on each side of midvein .................. 4. S. jambos

72b. Calyx lobes ca. 3 mm; secondary veins 8–12 on each side of midvein .................. 5. S. polypetaloides

69b. Petals 1–6 mm.

73a. Hypanthium clavate or shortly clavate.

74a. Leaf blade 1–1.5 cm wide; hypanthium ca. 7 mm ............................................. 64. S. araioclados

74b. Leaf blade 2–8 cm wide; hypanthium 8–15 mm.

75a. Leaf blade base usually slightly cordate; style ca. 5 mm .................................. 17. S. boisianum

75b. Leaf blade base broadly cuneate; style 15–20 mm ................................................................. 21. S. claviflorum
73b. Hypanthium obconic, turbinate, semiglobose, or broadly funnel-shaped.
76a. Petals 4–6 mm.
77a. Leaf blade secondary veins 12–16 on each side of midvein and 5–7 mm apart .......... 14. S. gongshanense
77b. Leaf blade secondary veins 9–12 on each side of midvein and 8–16 mm apart.
78a. Calyx lobes ca. 3 mm; leaf blade abaxially brownish when dry, secondary veins at an angle of ca. 55° from midvein ................................................................. 8. S. laosense
78b. Calyx lobes 1.5–2 mm; leaf blade abaxially pale green when dry, secondary veins at an angle of ca. 75° from midvein ................................................................. 28. S. sichuanense
76b. Petals 1–3 mm.
79a. Branchlets gray or grayish white when dry.
80a. Leaf blade secondary veins at an angle of 45° from midvein and 8–13 mm apart .......... 24. S. yunnanense
80b. Leaf blade secondary veins at an angle ca. 60° from midvein and 2–3 mm apart ......... 60. S. euonymifolium
79b. Branchlets rufescent brown to dark brown when dry.
81a. Stamens 1.5–2.5 mm; style to 2.5 mm ................................................................. 58. S. fruticosum
81b. Stamens 4–8 mm; style 6–8 mm.
82a. Petiole 10–15 mm; leaf blade base narrowly cuneate ........................................................ 78. S. szemaoense
82b. Petiole 5–8 mm; leaf blade base broadly cuneate ............................................................... 77. S. nanpingense

52b. Inflorescences terminal or subterminal.
83a. Branchlets quadrate or quadrangular.
84a. Petiole 10–15 mm.
85a. Calyx lobes 3–4 mm .................................................................................................................. 11. S. austroyunnanense
85b. Calyx lobes 0.5–1.5 mm.
86a. Leaf blade elliptic, 8–10 cm, adaxially olive green and glossy when dry ....................... 42. S. rockii
86b. Leaf blade obovate to elliptic, 5–6 cm, adaxially dark olive green and dull when dry .......... 68. S. euphlebium
84b. Petiole 1–5 mm.
87a. Hypanthium ca. 13 mm ........................................................................................................ 17. S. boisianum
87b. Hypanthium 2–3.5 mm.
88a. Leaf blade 1.5–3 cm.
89a. Stamens and style ca. 2.5 mm ................................................................................................ 37. S. busifolium
89b. Stamens and style ca. 5 mm .................................................................................................... 38. S. grijsii
88b. Leaf blade (2.5–)3–10 cm.
90a. Leaf blade elliptic to narrowly elliptic.
91a. Leaf blade adaxially blackish brown when dry, base cuneate, apex acuminate ............ 43. S. szemaoense
91b. Leaf blade adaxially greenish brown when dry, base broadly cuneate, apex acute to slightly obtuse ................................................................. 44. S. astrosinense
90b. Leaf blade ovate-lanceolate, lanceolate, narrowly oblong, oblong, or ovate-oblong.
92a. Leaf blade secondary veins at an angle of ca. 45° from midvein .......................... 41. S. handelii
92b. Leaf blade secondary veins at an angle of 60°–70° from midvein.
93a. Leaf blade base broadly cuneate, apex acuminate ..................................................... 34. S. tenuirhachis
93b. Leaf blade base cuneate, apex caudate-acuminate ....................................................... 40. S. sichuanense

83b. Branchlets terete or compressed.
94a. Branchlets pubescent; hypanthium villosulous ................................................................. 22. S. vestitum
94b. Branchlets glabrous; hypanthium glabrous.
95a. Hypanthium clavate or shortly clavate.
96a. Leaf blade secondary veins at an angle of ca. 40° from midvein ................................. 19. S. stenoeladum
96b. Leaf blade secondary veins at an angle of 70°–85° from midvein.
97a. Leaf blade base suborbicular to obtuse, secondary veins at an angle of 80°–85° from midvein ................................................................. 65. S. zeylanicum
97b. Leaf blade base cuneate to broadly cuneate, secondary veins at an angle of 70°–75° from midvein.
98a. Petiole 9–14 mm .............................................................................................................. 18. S. rysopodum
98b. Petiole 2–3 mm .............................................................................................................. 64. S. araiocladium
95b. Hypanthium obconic, campanulate, ellipsoid, or semiglobose.
99a. Hypanthium 6–20 mm.
100a. Calyx lobes 5–8 mm.
101a. Petals ca. 2 cm .................................................................................................................. 7. S. megacarpum
101b. Petals 0.7–1.5 cm.
102a. Leaf blade apex acuminate to long acuminate ............................................................ 4. S. jambos
102b. Leaf blade apex acute

100b. Calyx lobes 1–4 mm.

103a. Stamens 1.5–2 cm; calyx lobes 3–4 mm.

104a. Shrubs 2–3 m tall; petiole 4–6 mm; leaf blade narrowly lanceolate, 1.5–2.5 cm wide

104b. Trees to 12 m tall; petiole less than 4 mm; leaf blade elliptic to oblong, 5–8 cm wide

103b. Stamens 0.4–0.8 cm; calyx lobes 1–3 mm.

105a. Leaf blade adaxially grayish brown when dry, base broadly cuneate and slightly oblique

105b. Leaf blade adaxially olive green when dry, base cuneate

99b. Hypanthium 2–5 mm.

106a. Petiole 10–15 mm.

107a. Leaf blade secondary veins 8–13 mm apart

107b. Leaf blade secondary veins 1–2 mm apart.

108a. Leaf blade base obtuse to broadly cuneate and usually oblique, or wide and obtuse.

109a. Stamens ca. 3 mm; leaf blade adaxially blackish brown and dull when dry

109b. Stamens 5–7 mm; leaf blade adaxially dark brown and glossy when dry

108b. Leaf blade base cuneate.

110a. Leaf blade elliptic to ovate-elliptic, 8–12 cm

110b. Leaf blade obovate to elliptic, 5–6 cm

106b. Petiole 2–8 mm.

111a. Leaf blade apex acutate-acuminate or acuminate.

112a. Leaf blade elliptic to narrowly elliptic

112b. Leaf blade ovate-lanceolate to narrowly lanceolate.

113a. Petals ca. 1 mm; stamens ca. 1 mm

113b. Petals ca. 2 mm; stamens 4–5 mm

111b. Leaf blade apex obtuse, rounded, acute, or abruptly mucronate.

114a. Stamens 5–8 mm.

115a. Leaf blade secondary veins at an angle of ca. 45° from midvein

115b. Leaf blade secondary veins at an angle of ca. 80° from midvein

114b. Stamens 1.5–4 mm.

116a. Leaf blade intramarginal veins essentially at margin

116b. Leaf blade intramarginal veins ca. 1 mm from margin.

117a. Hypanthium ca. 2 mm; stamens 1.5–2 mm

117b. Hypanthium 4–5 mm; stamens 3–4 mm

Key based on fruiting material


1a. Infructescence axillary or lateral below leaves.

2a. Fruit 0.5–0.9 cm.

3a. Petiole 8–18 mm.

4a. Leaf blade secondary veins 2–3 mm apart or dense.

5a. Fruit ellipsoid-ovoid, ca. 8 × 6 mm

5b. Fruit globose, 6–7 mm.

6a. Leaf blade adaxially brown and glossy when dry

6b. Leaf blade adaxially grayish green and dull when dry

4b. Leaf blade secondary veins 8–13 mm apart.

7a. Branchlets light brown when dry; leaf blade secondary veins 8–9 on each side of midvein

7b. Branchlets grayish white when dry; leaf blade secondary veins 10–13 on each side of midvein.

8a. Leaf blade apex acuminate

8b. Leaf blade apex acute to sometimes slightly obtuse

3b. Petiole 1–7 mm.

9a. Fruit ellipsoid

9b. Fruit globose or subglobose.

10a. Branchlets grayish brown when dry

10b. Branchlets blackish brown, dark brown or brown when dry.

11a. Branchlets clumped

11b. Branchlets terete or compressed.
12a. Leaf blade secondary veins at an angle of ca. 40° from midvein ........................................ 59. S. fluviatile
12b. Leaf blade secondary veins at an angle of 60°–70° from midvein.
13a. Leaf blade elliptic to narrowly elliptic, 5–8 cm .................................................. 50. S. kwangtungense
13b. Leaf blade ovate-long lanceolate, 3–5.5 cm .................................................. 64. S. araiocladium
2b. Fruit 1–5 cm.
14a. Branchlets quadrate or quadrangular.
15a. Fruit clavate to ellipsoid.
16a. Leaf blade secondary veins 7–10 mm apart ................................................................. 26. S. lasianthifolium
16b. Leaf blade secondary veins 1–3 mm apart.
17a. Leaf blade narrowly ovate to obleng, base usually slightly cordate ......................... 17. S. boisianum
17b. Leaf blade narrowly oblong, elliptic, or long elliptic, base broadly cuneate.
18a. Branchlets grayish brown when dry ................................................................. 15. S. taiwanicum
18b. Branchlets grayish white when dry ................................................................. 16. S. championii
15b. Fruit globose or subglobose.
19a. Fruit 2.5–3 cm ............................................................................................................. 33. S. guangxiense
19b. Fruit 1–1.5 cm.
20a. Leaf blade 12–18 cm ................................................................................................. 25. S. tetongnum
20b. Leaf blade 4–9 cm.
21a. Branchlets blackish brown when dry ........................................................................ 34. S. tenuirhachis
21b. Branchlets gray or grayish white when dry.
22a. Leaf blade narrowly elliptic, secondary veins ca. 25 on each side of midvein .......... 29. S. salvinense
22b. Leaf blade elliptic, obovate-elliptic, or obleng, secondary veins ca. 22 on each side of
midvein ...................................................................................................................... 72. S. formosanum
14b. Branchlets terete or compressed.
23a. Calyx lobes or their vestiges absent.
24a. Leaf blade secondary veins 8–9 mm apart, at an angle of 45°–60° from midvein ........ 2. S. nervosum
24b. Leaf blade secondary veins 2–5 mm apart, at an angle of 65°–70° from midvein .... 3. S. conspersipunctatum
23b. Calyx lobes or their vestiges present.
25a. Leaf blade secondary veins 6–15 mm apart.
26a. Calyx lobes ca. 1 mm.
27a. Leaf blade 4.5–6 cm ................................................................................................. 72. S. formosanum
27b. Leaf blade 8–21 cm.
28a. Leaf blade secondary veins 14–19 on each side of midvein, intramarginal veins 3–4 mm
from margin ........................................................................................................... 20. S. baviense
28b. Leaf blade secondary veins 18–25 on each side of midvein, intramarginal veins ca. 1 mm
from margin ........................................................................................................... 21. S. claviflorum
26b. Calyx lobes more than 3 mm.
29a. Leaf blade intramarginal veins ca. 1.5 mm from margin .......................................... 5. S. polypetaloidium
29b. Leaf blade intramarginal veins (or at least major one) 2–5 mm from margin.
30a. Leaf blade apex acuminate to long acuminate ..................................................... 4. S. jambos
30b. Leaf blade apex obtuse to acute.
31a. Petiole to 4 mm; leaf blade base narrow, rounded, or slightly cordate ................. 6. S. samarangense
31b. Petiole ca. 10 mm; leaf blade base cuneate ........................................................... 12. S. malaccense
25b. Leaf blade secondary veins 1–5 mm apart.
32a. Petiole more than 1 cm.
33a. Branchlets blackish brown or dark brown when dry.
34a. Leaf blade adaxially yellowish green ................................................................. 18. S. rysopodum
34b. Leaf blade adaxially light green ................................................................. 77. S. nampaingense
33b. Branchlets gray or grayish white when dry.
35a. Leaf blade 4.5–6 cm ................................................................................................. 72. S. formosanum
35b. Leaf blade 6–12 cm.
36a. Leaf blade apex rounded to obtuse and with a short cusp .................................. 57. S. cuminii
36b. Leaf blade apex acute and with a 1.5–2 cm cusp .................................................. 63. S. hainanense
32b. Petiole less than 1 cm.
37a. Leaf blade secondary veins at an angle to 50° from midvein.
38a. Leaf blade 3–4 cm; petiole 3–4 mm ................................................................. 62. S. buxifolioidem
38b. Leaf blade 4–7 cm; petiole 4–9 mm.
39a. Fruit clavate to obovoid ....................................................................................... 19. S. stenocladium
39b. Fruit ellipsoid-ovoid .......................................................................................... 56. S. rehedarianum
37b. Leaf blade secondary veins at an angle of ca. 60° or more from midvein.
40a. Fruit pyriform, ellipsoid, or long pot-shaped.
41a. Calyx lobes 5 .................................................................................................................. 18. S. rysopodum
41b. Calyx lobes 4 .................................................................................................................. 21. S. claviflorum
40b. Fruit globose.
42a. Leaf blade 9–12 cm ........................................................................................................ 76. S. oblatum
42b. Leaf blade 3–7 cm.
43a. Petiole 3–6 mm ............................................................................................................ 61. S. hancei
43b. Petiole 8–12 mm ........................................................................................................... 72. S. formosanum
46a. Petiole more than 10 mm.
47a. Leaf blade secondary veins 8–13 mm apart ................................................................. 24. S. yunnanense
47b. Leaf blade secondary veins less than 5 mm apart.
48a. Fruit ellipsoid-ovoid ...................................................................................................... 31. S. forrestii
48b. Fruit globose ................................................................................................................ 49. S. chunianum
49a. Branchlets brown, dark brown, reddish brown, or yellowish brown when dry.
50a. Leaf blade base rounded to obtuse ................................................................................ 65. S. zeylanicum
50b. Leaf blade base broadly cuneate to obtuse.
51a. Leaf blade apex obtuse to slightly acute ................................................................... 50. S. kwangtungense
51b. Leaf blade apex caudate-acuminate.
52a. Leaf blade adaxially reddish brown when dry ............................................................... 48. S. album
52b. Leaf blade adaxially olive green when dry ................................................................. 64. S. aratocladum
49b. Branchlets gray, grayish white, or grayish brown when dry.
53a. Leaf blade ovate-lanceolate to ovate-oblong ............................................................ 47. S. odoratum
53b. Leaf blade obovate, oblanceolate, obovate-elliptic, elliptic, or ovate-elliptic.
54a. Leaf blade secondary veins 6–9 mm apart ................................................................. 23. S. cinereum
54b. Leaf blade secondary veins to 3 mm apart.
55a. Petiole ca. 1 mm ........................................................................................................... 39. S. oblancilimbum
55b. Petiole 5–12 mm.
56a. Leaf blade secondary veins at an angle of ca. 60° or more from midvein ................ 49. S. chunianum
56b. Leaf blade secondary veins at an angle of ca. 45° from midvein .............................. 74. S. levinei
45b. Branchlets quadrate or quadrangular.
57a. Petiole 1–1.8 cm.
58a. Leaf blade ovate, 4–5.5 cm ......................................................................................... 35. S. wenshanense
58b. Leaf blade elliptic to oblong, 6–18 cm.
59a. Calyx lobes 3–4 mm .................................................................................................. 11. S. austroyunnanense
59b. Calyx lobes inconspicuous ............................................................................................ 31. S. forrestii
57b. Petiole to 0.6 cm.
60a. Leaf blade 6–13 cm.
61a. Leaf blade elliptic .......................................................................................................... 44. S. austrosinense
61b. Leaf blade ovate-lanceolate, lanceolate, or narrowly oblong.
62a. Leaf blade base slightly cordate ................................................................................. 32. S. tephrodes
62b. Leaf blade base narrowly cuneate to cuneate.
63a. Leaf blade abaxially brownish green when dry, secondary veins abruptly ascending from midvein ................................................................. 30. S. sterrophyllum
63b. Leaf blade abaxially yellowish brown when dry, secondary veins at an angle of ca. 45° from midvein ................................................................. 41. S. handelii
60b. Leaf blade to 5 cm.
64a. Leaves sessile, blade base slightly cordate ................................................................ 32. S. tephrodes
64b. Leaves petiolate, blade base broadly cuneate, cuneate, or obtuse.
65a. Leaf blade elliptic, broadly elliptic, orbicular, obovate, or broadly obovate.
66a. Leaf blade abaxially dark brown when dry ................................................................. 37. S. buxifolium
66b. Leaf blade abaxially greenish brown when dry ........................................................... 44. S. austrosinense
65b. Leaf blade linear, narrowly oblong, lanceolate, narrowly lanceolate, or oblanceolate.
67a. Leaf blade secondary veins at an angle of 55°–65° from midvein .............................. 36. S. tsoongii
67b. Leaf blade secondary veins at an angle of 45°–50° from midvein.
44b. Fruit 1–5 cm.
70a. Calyx lobes 3–8 mm.
71a. Leaf blade secondary veins 2–3 mm apart 69. S. jienfunicum
71b. Leaf blade secondary veins more than 5 mm apart.
72a. Petiole almost absent to 4 mm 6. S. samarangense
72b. Petiole (4–)5–20 mm.
73a. Leaf blade base rounded to sometimes cordate 7. S. megacarpum
73b. Leaf blade base narrowly to broadly cuneate.
74a. Leaf blade adaxially black when dry, secondary veins 23–32 on each side of midvein 66. S. melanophyllum
74b. Leaf blade adaxially usually green but never black when dry, secondary veins 8–20(–25) on each side of midvein.
75a. Branchlets quadrangular 11. S. austroyunnanense
75b. Branchlets terete or compressed.
76a. Calyx lobes ca. 3 mm; petiole 4–6 mm 5. S. polypetaloideum
76b. Calyx lobes 5–8 mm; petiole 5–13 mm.
77a. Leaf blade lanceolate, ovate-lanceolate, oblone, or linear, apex acuminate to long acuminate 4. S. jambos
77b. Leaf blade elliptic to narrowly elliptic, apex acute 9. S. globiflorum
78a. Branchlets pubescent to (2 mm) or absent.
78b. Branchlets glabrous.
79a. Petiole (0.9–)1–2 cm.
80a. Branchlets quadrate or quadrangular.
81a. Leaf blade secondary veins 2–3 mm apart 72. S. formosanum
81b. Leaf blade secondary veins more than 5 mm apart.
82a. Leaf blade narrowly elliptic, secondary veins impressed when dry 29. S. salwinense
82b. Leaf blade obovate to elliptic, secondary veins slightly raised when dry 68. S. euphlebium
83a. Leaf blade secondary veins 5–12 mm apart.
84a. Leaf blade secondary veins 10–14 on each side of midvein 10. S. imitans
84b. Leaf blade secondary veins 23–32 on each side of midvein 66. S. melanophyllum
85a. Branchlets terete or compressed.
86a. Leaf blade apex obtuse or abruptly mucronate to slightly acute with an obtuse cusp 72. S. formosanum
86b. Leaf blade apex acuminate or caudate-acuminate.
87a. Leaf blade apex acuminate or caudate-acuminate 67. S. brachythyrsum
87b. Leaf blade apex acuminate.
88a. Leaf blade oblong to ovate-lanceolate, base cuneate 45. S. kasukasense
88b. Leaf blade elliptic to long elliptic, base rounded to broadly cuneate 76. S. oblatum
88c. Fruit ellipsoid, ellipsoid-ovoid, or pyriform.
89a. Leaf blade secondary veins to 7(–7) mm apart.
90a. Branchlets blackish brown when dry.
91a. Leaf blade adaxially yellowish brown when dry, apex acute 18. S. rysopodum
91b. Leaf blade adaxially dark brown when dry, apex acuminate 80. S. lineatum
92a. Leaf blade obovate-oblong, or obovate to elliptic.
93a. Leaf blade secondary veins 3–6 mm apart 54. S. densinervium
93b. Leaf blade secondary veins ca. 2 mm apart 68. S. euphlebium
94a. Leaf blade to narrowly elliptic.
94b. Leaf blade 4–7 cm, adaxially grayish brown to blackish brown when dry, apex abruptly acuminate 56. S. rehderianum
95a. Leaf blade adaxially green when dry, apex slightly acute to acuminate 53. S. toddalioides
95b. Leaf blade adaxially brownish green to blackish brown when dry, apex rounded to obtuse and with a short cusp .................................................................................. 57. S. cumini
97b. Petiole to 0.8 cm.
96a. Branchlets quadrate to quadrangular.
97a. Fruit ellipsoid or ellipsoid-ovoid.
98a. Leaf blade ovate to oblong, base usually slightly cordate ................................................. 17. S. boistianum
98b. Leaf blade narrowly oblong to elliptic or elliptic to narrowly elliptic, base cuneate to broadly cuneate.
99a. Fruit purple; leaf blade adaxially grayish green when dry ................................................. 16. S. championii
99b. Fruit red; leaf blade adaxially blackish brown when dry ..................................................... 43. S. szemaoense
97b. Fruit globose or globose pot-shaped.
100a. Leaf blade ovate-lanceolate to narrowly lanceolate ........................................................... 1. S. acuminatissimum
100b. Leaf blade elliptic, narrowly elliptic, obovate-elliptic, or oblong.
101a. Leaf blade oblong, 4–8 cm .................................................................................................. 69. S. jienfunicum
101b. Leaf blade elliptic, obovate-elliptic, or oblong, 4.5–7.5 cm.
102a. Leaf blade narrowly elliptic, secondary veins ca. 25 on each side of midvein ..................... 29. S. salwinense
102b. Leaf blade elliptic, obovate-elliptic, or oblong, secondary veins ca. 22 on each side of midvein ..................................................................................................................... 72. S. formosanum
96b. Branchlets terete or compressed.
103a. Fruit ellipsoid, ellipsoid-ovoid, or obovoid.
104a. Leaf blade base rounded to slightly cordate ........................................................................ 51. S. bullockii
104b. Leaf blade base cuneate to broadly cuneate.
105a. Leaf blade secondary veins at an angle of more than 60° from midvein .......................... 53. S. toddalioides
105b. Leaf blade secondary veins at an angle of 40°–45° from midvein.
106a. Leaf blade linear-lanceolate to narrowly lanceolate ......................................................... 55. S. myrsinifolium
106b. Leaf blade elliptic, narrowly elliptic, or narrowly oblong.
107a. Fruit when mature purplish red and obovoid  .................................................................. 19. S. stenocladium
107b. Fruit when mature black and ellipsoid-ovoid ....................................................................... 56. S. rehderianum
103b. Fruit globose.
108a. Leaf blade base rounded, broadly cuneate, or wide and obtuse.
109a. Leaf blade apex caudate-acute.
110a. Fruit blackish purple; petiole 5–8 mm ............................................................................... 1. S. acuminatissimum
110b. Fruit white; petiole 2–4 mm ............................................................................................... 48. S. album
109b. Leaf blade apex acuminate, or obtuse to slightly acute.
111a. Leaf blade ovate-elliptic, adaxially black when dry ......................................................... 75. S. thumra
111b. Leaf blade elliptic to long elliptic, adaxially grayish brown when dry .............................. 76. S. oblatum
108b. Leaf blade base cuneate.
112a. Leaf blade oblong ............................................................................................................... 69. S. jienfunicum
112b. Leaf blade broadly elliptic, obovate, oblong-oblong-lanceolate, elliptic, obovate-elliptic, or oblong.
113a. Branchlets brown when dry .............................................................................................. 71. S. congestiflorum
113b. Branchlets gray or grayish white when dry.
114a. Leaf blade secondary veins 9–13 on each side of midvein .................................................. 70. S. howii
114b. Leaf blade secondary veins ca. 22 on each side of midvein ................................................ 72. S. formosanum


肖蒲桃  xiao pu tao

Myrtus acuminatissima Blume, Bijdr. 1088. 1826–1827; Acmena acuminatissima (Blume) Merrill & L. M. Perry; Eugenia acuminatissima (Blume) Kurz (1875), not Miquel (1846); E. cuspidato-ovata Hayata; E. subdecurrens (Miquel) Merrill & Chun; Jambosa acuminatissima (Blume) Hasskarl; Syzygium cuspidato-ovatum (Hayata) Mori; S. subdecurrens Miquel.

Trees, to 20 m tall. Branchlets terete or obtusely ridged. Petiole 5–8 mm; leaf blade ovate-lanceolate to narrowly lanceolate, 5–12 × 1–3.5 cm, leathery, adaxially dark with numerous oil glands, secondary veins numerous, ca. 3 mm apart, at an angle of 65°–70° from midvein, abaxially visible, and adaxially inconspicuous, intramarginal veins ca. 1.5 mm from margin, base broadly cuneate, apex caudate-acute, and with a 2 cm acum. Inflorescences terminal, 3-flowered cymes arranged into panicles, 3–6 cm; peduncle ridged. Flower buds obovoid, 3–4 mm, basally cuneate, apically rounded. Hypanthium obconic, shortly stipitate. Calyx lobes inconspicuous, apical margins of hypanthium incurved. Petals white, distinct, ca. 1 mm. Stamens ca. 1 mm. Fruit blackish purple when ripe, globose, ca. 1.5 cm in diam., 1-seeded. Embryo with intrusive branching tissue extending into and interlocking cotyledons. Fl. Jul.–Oct.

Low to middle elevation forests. Guangdong, Guangxi, Hainan,

*Calyptrothrix nervosa* O. Ktze.

Fl. May–Jun. Fruit pale yellow or red when ripe, globose or ellipsoid, 2.5–5 cm in diam. Hypanthium obconic, 0.8–1.5 cm. Stamens 5–8 mm. Fruit globose, 1.5–2 cm. Petaloid stamens. Petals obvolute. Stamens 5–8 mm. Style 3–5 mm. Fruit pale yellow or red when ripe, globose or ellipsoid, 2.5–5 cm in diam., with oil glands, 1–2-seeded, pericarp fleshy. Embryos numerous. Fl. Mar–Apr, fr. May–Jun or Nov–Dec.

Trees, to 15 m tall, many-branched. Bark grayish brown, thick. Branchlets flattened, furrowed. Petiole 1–2 cm; leaf blade obovate to elliptic, 11–17 × 4.5–7 cm, thinly leathery, both surfaces glanular pungent, secondary veins 9–13 on each side of midvein, 8–9 mm apart, and at an angle of 45°–60° from midvein, reticulate veins obvious, intramarginal veins ca. 2 mm from margin, base broadly cuneate to slightly rounded, apex acute to acuminate. Inflorescences lateral on leafless branches, paniculate, 6–12 cm. Buds oval, ca. 5 × 3.5 mm. Hypanthium hemispheric, ca. 3 mm, not stipitate. Calyptra 2–3 mm, apex beaked. Petals obsolete. Stamens 5–8 mm. Style 3–5 mm. Fruit yellow when mature, broadly ovoid, 1–1.2 × 1–1.4 cm. Fl. May–Jun.

Forests, streams, also cultivated; 200–600 m. Guangdong, Guangxi, Hainan, Xizang (Cona), Yunnan [India, Indonesia, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam; N Australia].


*Cleistocalyx conspersipunctatus* Merrill & L. M. Perry, J. Arnold Arbor. 18: 335. 1937.

Trees, to 30 m tall. Bark brownish gray. Branchlets blackish brown when dry, flat, furrowed. Petiole 1.5–2 cm; leaf blade ovate to obovate, 5–8.5 × 3–5.5 cm, both surfaces dark brown when dry and with dispersed black glandular dots, secondary veins numerous, 2–5 mm apart, and at an angle of 65°–70° from midvein, intramarginal veins 3–4 mm from margin and with another smaller intramarginal vein outside of it, base broadly cuneate, apex mucronate to sometimes obtuse or rounded. Inflorescences axillary or terminal, panicle of cymes, 5–7 cm. Flower bud obovoid, ca. 6 mm, apex rounded. Flowers usually clusters of 3, sessile. Hypanthium obconic, ca. 4 × 5 mm, not stipitate. Calyptra hemispheric, 2.5–3 mm. Petals obsolete. Stamens 3–5 mm. Style 3–5 mm, narrower. Fruit globose, 1.5–2 cm in diam. Fl. Jul–Aug.

● Forests, valleys; middle elevations. Hainan.


水翁蒲桃

Trees, to 10 m tall. Stems very short, broadly branched. Branchlets terete or subterete, sometimes apically much compressed, sometimes shallowly grooved. Petiole 5–10 mm; leaf blade lanceolate, ovate-lanceolate, oblong, or linear, 8–26 × 2–4.5 cm, leathery or stiffly papery, both surfaces with numerous small pellucid glands, secondary veins 8–25 on each side of midvein, 0.7–1.5 cm apart, and abaxially obviously raised, reticulate veins conspicuous, intramarginal veins 2–3(–4) mm from margin, base narrow to broadly cuneate, apex acuminate to long acuminate. Inflorescences usually terminal cymes with several flowers, sometimes axillary and solitary; peduncle 1–3.5 cm. Flowers white or pink, 3–4 cm in diam. Hypanthium obconic, 0.8–1.5 cm. Calyx lobes 4, semiobicular or triangular-ovate, 5–8 × 6–9 mm. Petals distinct, broadly ovate, 1.4–1.5 cm. Stamens 1.5–2.8 cm; anthers ca. 1.5 mm. Style 2–3.5 cm. Fruit pale yellow or red when ripe, globose or ellipsoid, 2.5–5 cm in diam., with oil glands, 1–2-seeded, pericarp fleshy. Embryos numerous. Fl. Mar–Apr, fr. May–Jun or Nov–Dec.

Mixed forests, mountain slopes, riversides, river valleys; below 100 to 1500 m. Cultivated and sometimes escaped in Fujian, Guangdong, Guangxi, Hainan, Sichuan, Taiwan (var. tripinnatum believed to be native), and Yunnan (var. linearilimbum believed to be native) [Philippines; origin of var. jambos uncertain but possibly W Malesia and SE Asia].

1a. Leaf blade linear, 18–26 cm; flowers axillary, solitary .................. 4c. var. linearilimbum

1b. Leaf blade lanceolate, ovate-lanceolate, or oblong, 8–25 cm; flowers in terminal cymes.

2a. Leaf blade lanceolate to oblong, 12–25 cm, leathery; style 2–2.8 cm; fruit yellow ......................... 4a. var. jambos

2b. Leaf blade ovate-lanceolate to oblong, 8–12 cm, stiffly papery; style 3–3.5 cm; fruit red ............ 4b. var. tripinnatum

4a. *Syzygium jambos* var. jambos

蒲桃(原变种) pu tao (yuan bian zhong)

*Eugenia jambos* Linnaeus, Sp. Pl. 1: 470. 1753; *E. jambos* var. *sylvicola* Gagnepain; *Jambosa jambos* (Linnaeus) Millspaugh; *J. vulgaris* Candolle, nom. illeg. superfl.; *Myrtus jambos* (Linnaeus) Kunth; *Syzygium jambos* var. *sylvicola* (Gagnepain) Merrill & L. M. Perry. Branchlets terete. Petiole 6–8 mm; leaf blade lanceolate to oblong, 12–25 × 3–4.5 cm, leathery, secondary veins 12–16 on each side of midvein, 7–10 mm apart, and at an angle of ca. 45° from midvein, intramarginal veins ca. 2 mm from margin, base broadly cuneate, apex long acuminate. Inflorescences terminal, cymes, with several flowers; peduncle 1–1.5 cm. Flowers white, 3–4 cm in diam. Hypanthium obconic, 8–10 mm. Calyx lobes 4, semiobicular, ca. 6 × 8–9 mm. Petals distinct, broadly ovate, ca. 1.4 cm. Stamens 2–2.8 cm; anthers ca. 1.5 mm. Style 2–2.8 cm. Fruit pale yellow when ripe, globose, 3–5 cm in diam. Fl. Mar–Apr, fr. May–Jun.

Open mixed forests, riversides, river valleys; below 100 to 1500 m. Cultivated and sometimes escaped in Fujian, Guangdong, Guangxi, Hainan, Sichuan, and Yunnan [origin uncertain but possibly W Malesia and SE Asia].

This variety is often cultivated for its fruit throughout the tropics, so some gatherings may in fact not be from wild plants.

大花赤楠 da hua chi nan

Myrtus tripinnata Blanco, Fl. Filip. 421. 1837; Syzygium okulae Mori; S. tripinnatum (Blanco) Merrill.

Branchlets brown, subterete but apically much compressed. Petiole 5–7 mm; leaf blade ovate-lanceolate to oblong, 8–12 × 2–4.5 cm, stiffly papery, secondary veins 8–11 on each side of midvein and 1–1.5 cm apart, intramarginal veins 2–3(–4) mm from margin. Inflorescences terminal, cymes, 5–7(–9) cm, remote; peduncle (2–)3–3.5 cm; bracts 2, triangular. Flower pink. Hypanthium funnel-shaped, ca. 1.5 cm. Calyx lobes 4, suborbicular, 5–6 × 6–7 mm, subequally broad, punctate. Petals 4, elliptic, ca. 1.5 cm, punctate, apex rounded. Stamens numerous, 1.5–2.3 cm, unequal. Ovary 2-celled. Style filiform, 3–3.5 cm. Fruit red, ellipsoid, ca. 2.5 cm in diam., crowned by thick calyx rim. Fl. Apr, fr. Nov–Dec.

Evergreen mixed forests, mountain slopes; below 100 to 300 m. Taiwan (Lan Yu) [Philippines].


线叶蒲桃 xian ye pu tao

Branchlets terete, shallowly grooved. Petiole 7–10 mm; leaf blade linear, 18–26 × 2–2.25 cm, leathery, both surfaces glanular, abaxially yellowish brown, slightly shiny, secondary veins 19–25 on each side of midvein, intramarginal veins ca. 2 mm from margin, base narrow and decurrent, apex acuminate. Flowers axillary, solitary. Hypanthium obconic, ca. 1 cm. Calyx lobes triangular-ovate, 7–8 mm. Style ca. 3 cm. Style ca. 3 cm.

- Mixed forests, mountain slopes; 400–500 m. Yunnan (Hekou).


假多瓣蒲桃 jia duo ban pu tao

Shrubs, 2–3 m tall. Branchlets grayish brown when dry, terete. Petiole 4–6 mm; leaf blade leathery, narrowly lanceolate, 9–12 × 1.5–2.5 cm, both surfaces with obvious glands, abaxially brownish green when dry, adaxially green and slightly glossy when dry, secondary veins 8–12 on each side of midvein, 7–10 mm apart, abaxially slightly raised, and adaxially inconspicuous, reticulate veins conspicuous, intramarginal veins ca. 1.5 mm from margin, base narrowly cuneate, apex acuminate to slightly acute. Inflorescences terminal or sometimes axillary, cymes; peduncle ca. 1 cm. Flowers white, ca. 3 cm in diam. Hypanthium broadly oblong, ca. 8 × 10 mm. Calyx lobes 4, semi-ovariculate, ca. 3 × 7–8 mm. Petals distinct, ovular, ca. 8 mm in diam. Stamens ca. 2 cm. Style slightly exceeding stamens. Fruit globose, ca. 2 cm in diam. Fl. Apr–Jul, fr. Apr–Jun or Jul–Sep.

- Open or dense forests or scrub, riversides, sandy beaches; 200–1000 m. W Guangxi, S Yunnan.


洋蒲桃 yang pu tao

Myrtus samarangensis Blume, Bijdr. 1084. 1826–1827; Eugenia javanica Lamarck; Jambosa samarangensis (Blume) Candolle.

Trees, to 12 m tall. Branchlets compressed. Petiole less than 4 mm to sometimes nearly absent; leaf blade elliptic to oblong, 10–22 × 5–8 cm, thinly leathery, abaxially with numerous small glands, adaxially turning yellowish brown when dry, secondary veins 14–19 on each side of midvein, 6–10 mm apart, and at an angle of ca. 45° from midvein, reticulate veins conspicuous, intramarginal veins ca. 5 mm from margin and an additional intramarginal vein ca. 1.5 mm from margin, base narrow, rounded, or slightly cordate, apex obtuse to slightly acute. Inflorescences terminal or axillary, cymes, 5–6 cm, several-flowered. Flowers white. Hypanthium oblongic, 7–8 × 6–7 mm. Calyx lobes 4, semi-ovariculate, ca. 4 × 4 mm or larger. Petals 4, distinct, 1–1.3 cm. Stamens numerous, ca. 1.5 cm. Style 2.5–3 cm. Fruit dark red, pyriform to conic, 4–5 cm, fleshy, glossy, apex impressed; persistent sepals fleshy. Seed 1. Fl. Mar–Apr, fr. May–Jun.

Cultivated in Fujian, Guangdong, Guangxi, Sichuan, Taiwan, and Yunnan [native to Indonesia, Malaysia, Papua New Guinea, and Thailand].


阔叶蒲桃 ku o ye pu tao

Eugenia megacarpa Craib, Fl. Siam. 1: 652. 1931; E. latilimba Merrill; Syzygium latilimba (Merrill) Merrill & L. M. Perry.

Trees, to 20 m tall. Branchlets green when dried, slightly compressed. Petiole 5–10 mm; leaf blade narrowly long elliptic to elliptic, 14–30 × 6–13 cm, leathery, abaxially pale green when dry, adaxially green when dry, both surfaces without conspicuous glands, secondary veins 15–22 on each side of midvein and 1–1.3 cm apart, reticulate veins conspicuous, intramarginal veins 4–5 mm from margin and an additional inconspicuous intramarginal vein ca. 1.5 mm from margin, base rounded to sometimes cordate, apex acuminate. Inflorescences terminal, cymes, 2–6-flowered; peduncle very short. Flowers white, large. Hypanthium long oblongic, 1.5–2 × ca. 1.5 cm. Calyx lobes 4, rounded, 6–7 × 8–9 mm. Petals distinct, rounded, ca. 2 cm. Stamens numerous, 2.5–3 cm. Style ca. 4 cm. Fruit ovoid-globose, ca. 5 cm. Fl. Apr–Oct, fr. Jul–Oct.

- Moist low forests, riversides; 300–1200 m. Hainan, Guangxi, S and SW Yunnan [Bangladesh, Myanmar, Thailand, Vietnam].


少花老挝蒲桃 shao hua lao wo pu tao


Trees, 3–10 m tall. Branchlets grayish brown when dry, terete. Petiole 5–7 mm; leaf blade ovate-oblong to oblong, 11–17 × 4–6 cm, thinly leathery, abaxially brownish when dry,
adaxially grayish brown when dry, secondary veins 8–12 on each side of midvein, 0.8–1.2 cm apart, and at an angle of ca. 55° from midvein, reticulate veins abaxially conspicuous, intramarginal veins 3–4 mm from margin, abaxially slightly raised, and adaxially slightly visible, base broadly cuneate and slightly oblique, apex acuminate and with an obtuse cusp. Inflorescences terminal or axillary, paniculate cymes, 6–7 cm, branches lax and long. Flower buds ovoid, ca. 1 cm. Hypanthium semiglobose, ca. 7 mm, shortly stipitate. Calyx lobes 4, semi-орbicu-lar, ca. 3 × 5 mm, apex rounded. Petals 4, distinct, suborbicular, 4–5 mm. Stamens as long as petals. Style 7–8 mm. Fl. Apr–Nov.

Evergreen forests; low elevations. S Yunnan [Cambodia, Vietnam].

Syzygium laosense var. laosense is endemic to Laos and differs from var. guocense in having longer inflorescences with more flowers.


桂南蒲桃
dian nan pu tao


Shrubs or trees, 3–15 m tall. Branchlets terete, slightly compressed. Petiole 1–1.3 cm; leaf blade elliptic to narrowly elliptic, 9–16 × 2.5–5 cm, thinly leathery, both surfaces dark green when dry, abaxially glandular, secondary veins 12–17 on each side of midvein, 7–9 mm apart, and at an angle of ca. 55° from midvein, reticulate veins conspicuous, intramarginal veins ca. 1.5 mm from margin, base broadly cuneate, apex acute. Inflorescences terminal, cymes or paniculate cymes, 3–11-flowered; peduncle 1–1.5 cm. Flower buds ovoid, 1–1.2 cm. Hypanthium 8–9 mm. Calyx lobes 4, triangular-ovate, ca. 5 mm. Petals distinct, broadly ovate, 7–8 mm. Stamens size variable, 1–1.5 cm; anthers ca. 0.6 mm. Style ca. 1.3 cm. Fruit subglobose, ca. 2.5 cm in diam. Fl. Apr–Aug.

Mountain valleys, dense forests; 200–1000(–2400 in Yunnan) m. Guangxi, Hainan, Yunnan [Thailand].


华夏蒲桃
hua xia pu tao

Trees, to 8 m tall. Branchlets brown when dry, stout, terete. Petiole ca. 1 cm; leaf blade narrowly elliptic to elliptic, 16–24 × 6–8 cm, leathery, abaxially yellowish brown when dry, adaxially dark green and not glossy when dry, secondary veins 11–14 on each side of midvein, 1–1.5 cm apart, and at an angle of ca. 45° from midvein, reticulate veins conspicuous, intramarginal veins 3–5 mm from margin and another inconspicuous intramarginal vein ca. 1 mm from margin, base cuneate, apex acute. Inflorescences lateral on older leafless branches, cymes, in 4–9-flowered clusters; peduncle very short. Flowers red, ca. 2.5 cm, stout, ridged. Hypanthium broadly obconic, ca. 1 × 1 cm. Calyx lobes 4, suborbicular, 5–6 × 7–8 mm, apex rounded. Petals rounded, ca. 1 × 1 cm, distinct. Stamens completely distinct, 1–1.3 cm. Style as long as stamens. Fruit ovoid to pot-shaped, ca. 4 cm, 1-seeded. Fl. May or Jan–Feb, fr. Apr–May.

Cultivated but sometimes naturalized in mixed forests in Taiwan and Yunnan [probably native to Malaysia].

This species is commonly cultivated for its fruit in wet-tropical areas around the world and is sometimes naturalized.


馬六甲蒲桃
ma liu jia pu tao


Trees, to 15 m tall. Branchlets grayish brown when dry, stout, terete. Petiole ca. 1 cm; leaf blade narrowly elliptic to elliptic, 10–18 × 4–7 cm, leathery, abaxially brownish yellow when dry, adaxially olive green and slightly glossy when dry, secondary veins 13–20 on each side of midvein, 6–10 mm apart, and at an angle of ca. 60° from midvein, reticulate veins conspicuous, intramarginal veins ca. 2 mm from margin, abaxially raised, and adaxially conspicuous, base broadly cuneate, apex acute and with an obtuse cusp. Inflorescences terminal, paniculate 3-flowered cymes, 6–8 cm; bractlets lanceolate, ca. 2.5 mm. Calyx lobes 4, ovate to semi-orbicular, 3–4 × ca. 5 mm. Fruit 1- to 2-seeded. Fr. Nov.

● Mountain valleys, shady and moist regions in sparse forests; 1400–1700 m. Guangxi (Hengxian), S Yunnan (Xishuangbanna).


马六甲蒲桃
ma liu jia pu tao


Trees, to 15 m tall. Branchlets grayish brown when dry, stout, terete. Petiole ca. 1 cm; leaf blade elliptic to oblong, 10–18 × 4–7 cm, leathery, abaxially brownish green, adaxially olivaceous green and slightly glossy, secondary veins 13–20 on each side of midvein, 6–10 mm apart, and at an angle of ca. 60° from midvein, reticulate veins conspicuous, intramarginal veins ca. 2 mm from margin, abaxially raised, and adaxially conspicuous, base broadly cuneate, apex acute and with an obtuse cusp. Inflorescences terminal, paniculate 3-flowered cymes, 6–8 cm; bractlets lanceolate, ca. 2.5 mm. Calyx lobes 4, ovate to semi-orbicular, 3–4 × ca. 5 mm. Fruit 1- to 2-seeded. Fr. Nov.

● Mountain valleys, shady and moist regions in sparse forests; 1400–1700 m. Guangxi (Hengxian), S Yunnan (Xishuangbanna).
lateral veins between them, reticulate veins abaxially conspicuous, intramarginal veins 2–3 mm from margin, base cuneate, apex slightly acute. Inflorescences axillary, paniculate cymes, 3–5 cm, many-flowered; peduncle terete, ca. 1 cm. Hypanthium ca. 5 mm. Calyx lobes 4, shortly triangular, 1.5–2 mm. Petals white, distinct, ovate to orbicular, 5–7 mm. Stamens 1–1.5 cm; anthers small, apex with a gland. Style ca. 1.5 cm. Fl. Jan–Feb.

- Moist secondary forests, riversides. W Guangxi, S Yunnan.


贡山蒲桃 gong shan pu tao

Trees, 5–6 m tall. Branchlets brown, terete. Petiole ca. 1 cm; leaf blade oblong to oblong-elliptic, 8.5–15 × 3.5–5 cm, thinly leathery, abaxially greenish yellow, adaxially green and densely glandular punctate, secondary veins 12–16 on each side of midvein and 5–7 mm apart, intramarginal veins ca. 2 mm from margin, base cuneate, apex acute and with a 5–7 mm tip. Inflorescences axillary or lateral on old leafless branches, cymes, 2–3 cm. Flowers white, 8–10 mm. Hypanthium turbinate, ca. 5 mm; limb 4–5 mm broad. Calyx lobes 4, semiorbicular, apex obtuse. Petals distinct, ovate, ca. 4 × 3.5 mm. Stamens ca. 8 mm, equal in length. Fl. Aug–Sep.

- Broad-leaved evergreen forests, mountain slopes beside streams; ca. 1600 m. Yunnan (Gongshan).


台湾榛花蒲桃 tai wan bang hua pu tao

Eugenia claviflora Roxburgh var. oblongifolia Hayata, Icon. Pl. Formosan. 3: 116. 1913; Syzygium claviflorum (Roxburgh) A. M. Cowan & Cowan var. oblongifolium (Hayata) Mori.

Trees, small. Branchlets grayish brown when dry, slender, 4-angled. Petiole 4–5 mm; leaf blade long elliptic, 5–7 × 2–3 cm, leathery, abaxially slightly yellowish brown when dry, adaxially grayish green and not glossy when dry, secondary veins ca. 1.5 mm apart, at an angle of ca. 70° from midvein, abaxially inconspicuous, and adaxially slightly impressed, intramarginal veins ca. 1 mm from margin, base broadly cuneate, apex slightly acute and with an obtuse cusp. Inflorescences axillary, cymes, flowers (1 or)2 or 3. Hypanthium clavate, ca. 2 cm. Calyx lobes 4, semiorbicular. Fruit long clavoid. Fl. Mar–Apr, fr. Nov–Dec.

- Broad-leaved evergreen forests; 100–400 m. Taiwan (Lan Yu, Pengjia Yu).


子凌蒲桃 zi ling pu tao

Acmena championii Bentham, Hooker’s J. Bot. Kew Gard. Misc. 4: 118. 1852; Eugenia championii (Bentham) Hemsley; E. henryi Hance; E. maclurei Merrill.

Shrubs to trees. Branchlets grayish white when dry, 4-angled. Petiole 2–3 mm; leaf blade narrowly oblong to elliptic, 3–6(–9) × 1–2(–3) cm, leathery, both surfaces grayish green when dry, adaxially not glossy, secondary veins numerous, ca. 1 mm apart, and nearly level with surface, intramarginal veins nearly at margin, base broadly cuneate, apex acute and usually with a cusp less than 1 cm. Inflorescences terminal or sometimes axillary, cymes, ca. 2 mm, 6–10-flowered. Flower buds clavate, ca. 1 cm, basal part narrow. Hypanthium clavate, 8–10 mm. Calyx lobes 4, shallowly wavy. Petals white or pink, connate into a calyptra. Stamens 3–4 mm. Style as long as stamens. Fruit red, long ellipsoidal, ca. 12 × 6–8 mm, shallowly grooved when dry, 1- or 2-seeded. Fl. Aug–Nov, fr. Oct–Dec.

- Broad-leaved evergreen forests; 100–700 m. Guangdong, Guangxi, Hainan [Vietnam].


无柄蒲桃 wu bing pu tao


Shrubs, to 2 m tall. Branchlets grayish white when dry, slender, 4 angled; older branches terete. Leaves very shortly petiolate to nearly sessile; leaf blade narrowly ovate to oblong, 4–12 × 2–5 cm, leathery, abaxially pale colored when dry, adaxially green with yellow when dry, secondary veins numerous, dense, 2–3 mm apart, level with surface, and conspicuous on both surfaces, intramarginal veins ca. 1 mm from margin, base usually slightly cordate, apex acuminate. Inflorescences terminal or axillary, cymes, ca. 2 cm, (1 or)3–6-flowered. Hypanthium clavate, ca. 13 × 4 mm, basally gradually narrow. Calyx lobes shallow wavy. Petals distinct, orbicular, 2–3 mm in diam., outer ones bigger. Stamens numerous; anthers ca. 0.7 mm. Disk discoid. Style ca. 5 mm. Fruit clavoid to long tubular. Fl. (Jun–)Aug–Oct.

- Dense forests; 100–200 m. Hainan [Thailand, Vietnam].


皱萼蒲桃 zhou e pu tao

Trees, to 20 m tall, d.b.h. to 75 cm. Branchlets blackish brown when dry, strongly compressed. Petiole 0.9–1.4 cm, corrugate when dry; leaf blade elliptic, 4.5–9 × 1.7–3.6 cm, leathery, both surfaces with conspicuous small glands, abaxially yellowish green and glossy, secondary veins 1.5–2.5 mm apart, at an angle of ca. 75° from midvein, and inconspicuous on both surfaces, intramarginal veins near margin, base cuneate, apex acute and with a slightly obtuse cusp. Inflorescences usually terminal or sometimes axillary, cymes, to 6 cm. Hypanthium clavate, 10–12 × ca. 4 mm, corrugate when dry. Calyx lobes 5, very short. Stamens 1–4 mm. Style 4–5 mm. Fruit dark red when ripe, pyriform to ellipsoid, ca. 1 cm, 1- or 2-seeded. Fl. Feb–Mar and Jun–Jul.

- Forests in mountains; 1500–1800 m. Hainan.


纤枝蒲桃 xian zhi pu tao
Trees, to 16 m tall. Branchlets grayish white when dry, slender, terete. Petiole 4–8 mm; leaf blade narrowly elliptic to narrowly oblong, 4–7 × 1.5–3 cm, leathery, both surfaces olive green when dry and with minute glands, secondary veins 1–2 mm apart, at an angle of ca. 40° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 0.5 mm from margin, base turning narrow and decurrent, apex acuminate and with a slightly obtuse cusp. Inflorescences terminal or axillary, cymes, several-flowered. Hypanthium clavate, 1–1.2 cm, straight sulcate when dry. Calyx lobes shallowly wavy. Stamens 1–4 mm. Style ca. 4 mm. Fruit purplish red, long clavovoid before when young but becoming obovoid. Fl. Apr–May, fr. May.

- Broad-leaved evergreen forests in mountains; ca. 600 m. Hainan.


短棒蒲桃


Shrubs or small trees. Branchlets grayish white when dry, terete. Petiole 5–6 mm; leaf blade oblong to elliptic, 9–15 × 3.5–5 cm, subpapery, abaxially glabrous, adaxially dark when dry, secondary veins 14–19 on each side of midvein, 6–8 mm apart, and at an angle of ca. 75° from midvein, tertiary veins usually parallel to secondary veins, intramarginal veins 3–4 mm from margin, base broadly cuneate, apex acute. Inflorescences axillary, corymb, 1.5–2 cm, 4–9-flowered; peduncle ca. 5 mm. Flower buds 1–1.2 cm. Hypanthium shortly clavate, 6–8 mm, base narrow. Calyx lobes 4, shortly triangular, ca. 1 mm. Petals coherent. Stamens 3–4 mm. Style ca. 3 mm. Fruit clavovoid to long ovoid, ca. 10 × 5 mm. Fl. Apr–May, fr. Jun–Jul.

Rain forests; 200–600 m. Yunnan (Hekou) [Vietnam].


棒花蒲桃

*Eugenia claviflora* Roxburgh, Fl. Ind., ed. 1832, 2: 488. 1832; *Acmenesperma claviflorum* (Roxburgh) Kausel; *E. leptantha* Wight; *Syzygium leptanthum* (Wight) Niedenzu.

Shrubs or trees, 3–15 m tall. Branchlets grayish white to grayish brown when dry, terete, slightly compressed. Petiole 5–8 mm; leaf blade narrowly oblong, oblong, or elliptic, 8–21 × 3–8 cm, thinly leathery, abaxially pale when dry, adaxially slightly glossy green to yellowish green when dry, adaxially with numerous impressed small glands, secondary veins 18–25 on each side of midvein, 1–7 mm apart, and slowly ascending into margin, intramarginal veins ca. 1 mm from margin, base broadly cuneate, apex slightly acute, obtuse, or acuminate and with an obtuse tip. Inflorescences axillary or sometimes lateral below leaves, cymes or umbels, ca. 2.5 cm, 3–9-flowered. Flowers pink or red. Hypanthium clavate, 0.8–1.5 cm, basally narrow and long, ribbed. Calyx lobes 4, shortly semiorbiculate, shallowly wavy. Petals 4, distinct or coherent, ovate to rounded, ca. 3 mm. Stamens 4–7 mm. Style 1.5–2 cm, apex sharp. Fruit purplish red to black, long ellipsoid to long pot-shaped, 1.5–2 × 0.6–0.8 cm. Fl. Mar–Apr, fr. May–Jun.

Dense or open broad-leaved evergreen forests, valleys, hills; below 100–1300 m. Hainan, Yunnan [Butan, India, Indonesia, Malaysia, Myanmar, Papua New Guinea, Thailand, Vietnam; Australia].


毛脉蒲桃


Trees, 4–7 m tall. Branchlets terete, pubescent. Petiole 7–9 mm; leaf blade elliptic, 12–22 × 4–7 cm, leathery, abaxially brown when dry, adaxially black when dry, abaxially with small glands, midvein and secondary veins papillate, secondary veins ca. 10 on each side of midvein and 1–1.5 cm apart, a small parallel tertiary vein between each secondary vein, intramarginal veins 5–6 mm from margin, base broadly cuneate, apex acute. Inflorescences terminal, paniculate cymes, 10–14 cm, branched; peduncle compressed, with brown glandular wool. Flower buds sessile, long oval-shaped, 4–5 × 2–3 mm. Hypanthium villosulous. Calyx lobes ca. 1 mm, rounded. Petals distinct. Fruit globose, 1–1.2 cm in diam. Fl. May–Jul.

Broad-leaved evergreen forests; 800–1500 m. SE Yunnan [Vietnam].


钝叶蒲桃


Trees, to 8 m tall. Branchlets gray when dry, terete. Petiole 5–8 mm; leaf blade obovate, 7–10 × 3.5–4.5 cm, leathery, abaxially brownish when dry, adaxially grayish brown and not glossy when dry, secondary veins 7–9 on each side of midvein, 6–9 mm apart, at an angle of ca. 45° from midvein, abaxially raised, and adaxially slightly impressed, reticulate veins inconspicuous, intramarginal veins ca. 2.5 mm from margin, base turning narrow, apex rounded to obtuse. Inflorescences terminal, paniculate cymes, 3–7 cm. Flower buds obconic. Hypanthium ca. 3.5 mm. Calyx lobes 4, shallow wavy. Petals 4, coherent, ovate and slightly rounded, ca. 2 mm. Stamens 1.5–2 mm; anthers small. Style ca. 1 mm. Fruit red when ripe, globose, 6–8 mm in diam. Fl. Apr–May.

Thickets, hilly areas. S Guangxi [Malaysia, Thailand, Vietnam].


云南蒲桃


Trees, to 15 m tall. Branchlets grayish white when dry, compressed, shallowly grooved. Petiole 1–1.5 cm; leaf blade broadly lanceolate to elliptic, 10–21 × 3–7 cm, leathery, both surfaces brownish green when dry, abaxially with numerous small glands, secondary veins 10–13 on each side of midvein, 0.8–1.3 cm apart, and at an angle of ca. 45° from midvein, reticulate veins conspicuous, intramarginal veins ca. 3 mm from margin, base broadly cuneate, apex acuminate. Inflorescences,
terminal or sometimes lateral on leafless branches, paniculate cymes, 3–6 cm, usually 2–4-clustered; peduncle brown, 2–4 cm, terete. Flowers sessile, 1–3-clustered. Hypanthium obconic, ca. 2.5 mm, apical part amplitate. Calyx lobes inconspicuous. Petals distinct, suborbicular, ca. 3 mm. Stamens 1–1.5 mm; anthers grayish white when dry. Style ca. 1 cm. Young fruit globose. Fl. Apr–May.

- Forests; 600–1300 m. Yunnan.


**四角蒲桃** si jiao pu tao


Trees, to 20 m tall, d.b.h. to 15 cm. Branchlets stout, 4-angular, ridges conspicuous. Petiole 1–1.6 cm, stout; leaf blade leathery, elliptic to obovate, 12–18 × 6–8 cm, abaxially slightly pale when dry, adaxially dark brown and not glossy when dry, secondary veins 9–13 on each side of midvein and 7–10 mm apart, reticulate veins conspicuous, intramarginal veins 2–3 mm from margin, base broadly cuneate to rounded, apex rounded to obtuse and with a ca. 1 cm cusp. Inflorescences lateral on leafless branches, paniculate cymes, 3–5 cm. Flower buds 6–7 mm. Hypanthium short, obconic. Calyx lobes obtuse and short. Petals coherent, white. Stamens ca. 3 mm. Fruit tinged yellow, globose, ca. 1 cm in diam. Fl. (Feb–)Jul–Aug(–Nov), fr. Nov–Jan.

Open or dense broad-leaved evergreen forests, mountain valleys, steamisides; 800–2000 m. Guangxi, Hainan, Xizang (Cona, Médog), Yunnan [Bhutan, India, Myanmar, Nepal, Thailand].


**粗叶木蒲桃** cu ye mu pu tao

Shrubs, to 2 m tall. Branchlets brown when dry, 4-angular; old branches grayish white. Petiole 5–7 mm; leaf blade oblong, 6–10 × 2–3.5 cm, leathery, abaxially reddish brown when dry, adaxially blackish brown and glossy when dry, secondary veins 7–9 on each side of midvein and 6–10 mm apart, intramarginal veins 2–3 mm from margin, base broadly cuneate to obtuse, apex acute to acuminate. Flowers not seen. Inflorescences axillary, cymes, 1–2 cm. Fruit purple when ripe, ellipsoid, ca. 10 × 6–7 mm; persistent calyx lobes 4, semi-elliptic, ca. 1.5 mm; persistent style ca. 3 mm. Fr. May–Jun.

- Woodlands on mountain slopes, scrub on hills. Guangdong (Lianjiang).


**香胶蒲桃** xiang jiao pu tao


Shrubs or trees, to 12 m tall. Branchlets grayish white when dry, slightly compressed. Petiole 1–1.3 cm; leaf blade elliptic to narrowly oblong, 10–20 × 4–8.5 cm, leathery, base cuneate to broadly cuneate, apex acute to sometimes slightly obtuse, both surfaces with numerous small glands, abaxially grayish brown when dry, adaxially pale brown and not glossy when dry, secondary veins 11–13 on each side of midvein, 0.8–1.3 cm apart, and abaxially raised, reticulate veins conspicuous, intramarginal veins ca. 2.5 mm from margin. Inflorescences lateral on leafless branches, paniculate, 2–7 cm; peduncle grayish white. Hypanthium obconic, ca. 2.5 mm, apex nearly abrupt. Calyx lobes inconspicuous. Petals coherent. Stamens 2–3 mm. Style as long as stamens. Fruit red, globose, 5–6 mm in diam., 1-seeded. Fl. Nov–Dec, fr. Jan–Feb.

Moist open or dense forests, riversides; 500–1300 m. Xizang (Médog), S Yunnan [India, Myanmar, Thailand, Vietnam].


**西藏蒲桃** xi zang pu tao

Trees, to 25 m tall. Branchlets grayish brown when dry, terete, glabrous. Petiole 0.7–1.3 cm; leaf blade oblong to elliptic, 8–23 × 3.5–6.2 cm, thinly papery, abaxially pale green when dry, adaxially dark green and slightly glossy when dry, both surfaces with conspicuous small glands, abaxially glabrous, secondary veins 9–10 on each side of midvein, 0.8–1.6 cm apart, ascending at an angle of ca. 75° from midvein, and with another small parallel vein between them, intramarginal veins 2–5 mm from margin, base broadly cuneate, apex acuminate to sometimes acute. Inflorescences lateral on leafless branches, cymes, 2–6 cm, 4–7-flowered; peduncle ca. 1 cm. Flower buds obovoid, 6–7 mm. Pedicel 4–8 mm, with sparse trichomes. Hypanthium 4–5 mm, villosulous. Calyx lobes 4, semi-elliptic, 1.5–2 mm. Petals 4, white, distinct, obovate, 5–6 mm. Stamens 6–10 mm. Style 4–5 mm. Fl. Jun–Jul.

- Broad-leaved evergreen forests; 800–1000 m. Xizang (Médog).


**怒江蒲桃** nu jiang pu tao

Trees, 3–15 m tall. Branchlets gray when dry, 4-angular, sometimes grooved. Petiole 3–10 mm; leaf blade narrowly elliptic, 4–8 × 1.2–3.5 cm, leathery, abaxially pale when dry, adaxially olive greenish yellow when dry, both surfaces with small glands, midvein impressed, secondary veins ca. 25 on each side of midvein and impressed when dry, intramarginal veins ca. 2 mm from margin, base cuneate, apex acuminate and with an obtuse cusp. Inflorescences axillary or in leaf axils apically on branches, paniculate cymes, 2–4 cm, with flowers usually in clusters of 3 at end of branches. Flower buds ca. 5 × 3 mm. Hypanthium pyriform. Calyx lobes ca. 0.5 × 1.5 mm. Petals coherent, Stamens ca. 5 mm; anthers ca. 0.5 mm, with glandular protuberances at apex. Fruit red, globose pot-shaped, ca. 1 cm in diam. Fl. Mar–Apr, fr. May–Jun–Nov.

- Broad-leaved evergreen forests, hillsides, valleys, stream margins; 800–1800(–2400) m. Guangxi, NW Yunnan.

硬叶蒲桃  ying ye pu tao

Shrubs or trees, 1–5 m tall. Branchlets dark brown when dry, 4-angled. Petiole 3–6 mm; leaf blade narrowly lanceolate, 6–13 × 1–1.8 cm, leathery, abaxially brownish green when dry, adaxially grayish brown and not glossy when dry, secondary veins numerous, 1–1.5 mm apart, 45°–60° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 0.5 from margin, base narrowly cuneate and decurrent, apex acuminate. Inflorescences axillary or in leaf axils apically on branches, cymes, 1–1.5 cm, several-flowered. Flower buds ca. 4.5 mm. Flowers white. Hypanthium obconic, ca. 3 mm. Petals coherent. Stamens 3–4 mm. Style equal length to stamens. Petiole 3–5 mm; leaf blade oblong to ovate-oblong, 6–9 × 2–3 cm, leathery, abaxially slightly raised, and adaxially slightly dull, secondary veins ca. 1.5 mm apart, at an angle of ca. 80° from midvein, and slightly raised on both surfaces, intramarginal veins ca. 1 mm from margin, base broadly cuneate to obtuse, apex acute and with a cusp less than 1 cm. Flowers not seen. Inflorescences axillary, cymes. Fruit globose, 2.5–3 cm in diam., apical persistent calyx limb ca. 1 × 3.5 mm. Fr. Nov.

● Broad-leaved evergreen forests, mountain slopes, stream margins; 300(–2000) m. Hainan.


滇边蒲桃 di an bian pu tao

Trees, 8–15 m tall. Branchlets blackish brown when dry, ca. 2 mm thick, compressed or slightly angled. Petiole 1.2–1.8 cm; leaf blade elliptic, 6–11 × 2.5–4 cm, leathery, adaxially glands sparse, secondary veins numerous, 1.5–5 mm apart, and abaxially slightly raised, intramarginal veins 0.5–1 mm from margin, base cuneate, apex acuminate and with a ca. 1.5 cm obtuse cusp. Inflorescences axillary or in leaf axils apically on branches, paniculate cymes, 3–8 cm, numerous-flowered; secondary veins numerous, 1–1.5 cm apart, nearly same level as leaf surface, abaxially slightly visible, and adaxially conspicuous, intramarginal veins very near margin, base slightly cordate, margin glandular punctate, apex obtuse and with an acuminate to acute tip. Inflorescences terminal, paniculate cymes, 3–4 cm; peduncle grayish white, ridged. Flowers white, fragrant. Hypanthium grayish white, narrowly obconic, ca. 4 mm, longitudinally corrugate when dry. Calyx lobes 4, ovate-rounded, ca. 1 mm. Petals coherent, rounded, ca. 2 mm. Stamens 3–4 mm. Style 6–7 mm. Fruit grayish white, broadly ellipsoid, 3–4 mm, apical part narrow, apically with persistent calyx lobes. Fl. May–Jul, fr. Nov–Dec.

● Broad-leaved evergreen forests, valleys, slopes, stream margins; 300(–2000) m. Hainan.


方枝蒲桃 fang zhi pu tao

Eugenia tephrodes Hance, J. Bot. 23: 7. 1885.

Shrubs to trees, to 6 m tall. Branchlets grayish white when dry, narrowly winged at angle; old branches grayish brown, terete. Leaves subdiasessile; leaf blade ovate-lanceolate, 2–5(–11) × 1–1.5(–3) cm, leathery, abaxially slightly pale when dry, adaxially grayish green to grayish brown and not glossy when dry, secondary veins 12–16 on each side of midvein, ca. 1.5 mm apart, nearly same level as leaf surface, abaxially slightly visible, and adaxially conspicuous, intramarginal veins very near margin, base slightly cordate, margin glandular punctate, apex obtuse and with an acuminate to acute tip. Inflorescences axillary, cymes, 1–1.5 cm, sessile. Fruit globose, 8 mm in diam.


广西蒲桃 guang xi pu tao

Shrubs, to 1 m tall. Branchlets grayish brown when dry, flattened and angled; old branches gray. Petiole 4–6 mm; leaf blade long elliptic, 8–12 × 3–5 cm, thinly leathery, adaxially brownish when dry, adaxially grayish brown and not glossy when dry, secondary veins ca. 1.5 mm apart, at an angle of ca. 80° from midvein, and slightly raised on both surfaces, intramarginal veins ca. 1 mm from margin, base broadly cuneate to obtuse, apex acute and with a cusp less than 1 cm. Fruit not seen. Inflorescences axillary, cymes. Fruit globose, 2.5–3 cm in diam., apical persistent calyx limb ca. 1 × 3.5 mm. Fr. Nov.

● Thickets, limestone hillsides; ca. 500 m. S Guangxi.


细轴蒲桃 xi zhou pu tao

Trees, to 9 m tall. Branchlets blackish brown when dry, angled. Petiole 3–5 mm; leaf blade oblong to ovate-oblong, 6–9 × 2–3 cm, leathery, secondary veins 1.5–2.5 mm apart, at an angle of ca. 70° from midvein, abaxially obscure, and adaxially inconspicuous, intramarginal veins ca. 1 mm from margin, base broadly cuneate, apex acuminate and with an obtuse cusp. Inflorescences axillary, paniculate cymes, 1- or 2-clustered, 2–3 cm; peduncle slender, ridged; bracts acicular. Flowers 3-clustered, sessile. Flower buds long pyriform, ca. 4 mm. Hypanthium ca. 3 mm. Calyx lobes shallowly wavv. Petals distinct, ca. 2.5 mm. Stamens slightly prominent. Fruit globose, 1.2–1.5 cm in diam. Fl. Jun.

● 1100–1200 m. Guangxi (Xilin).


文山蒲桃 wen shan pu tao

Trees, to 10 m tall. Branchlets 4-angled. Petiole ca. 1 mm; leaf blade ovate, 4–5.5 × 2.5–3.5 cm, leathery, abaxially with small glands, adaxially slightly dull, secondary veins 1–1.5 mm apart and almost perpendicular to midvein, intramarginal veins ca. 1 mm from margin, base rounded to slightly cordate, apex shortly acute and with an obtuse cusp. Flowers not seen. Inflorescences terminal, cymose, 1–1.5 cm, sessile. Fruit globose, 8 mm in diam.

● Mixed forests, limestone hillsides. Yunnan (Wenshan).

狭叶蒲桃 xia ye pu tao

Eugenia tsoongii Merrill, Philipp. J. Sci. 21: 504. 1922; E. leucocarpa Gagnepain (1918), not Merrill (1916).

Shrubs or trees, 1–5 m tall. Branchlets grayish brown when dry, slender, 4-angled. Petiole less than 2 mm; leaf blade linear to narrowly oblong, 1.5–4.5 × 0.4–1.2 cm, leathery, abaxially slightly grayish white when dry, adaxially olive green when dry, adaxially with numerous small glands, midvein impressed, secondary veins 1–1.5 mm apart, at an angle of 55°–65° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins very close to margin, base gradually narrow and rounded to slightly obtuse, apex obtuse. Inflorescences terminal, paniculate cymes, ca. 3 cm; peduncle 4-ridged. Flower buds conic, 5–7 mm. Flowers white, ca. 1.2 cm. Hypanthium obconic, ca. 4 mm, glandular punctate, corrigate when dry, glaucous. Calyx lobes 4 or 5, suborbicular, ca. 1 mm, persistent. Petals 4 or 5, coherent, rounded, ca. 2 mm in diam., glandular punctate. Stamens 5–7 mm. Style ca. 8 mm. Fruit white when ripe, globose, 5–7 mm in diam. Fl. May–Aug, fr. Oct–Dec.

Mountain valleys, margin of mixed forests by streams; 400–600 m. Guangxi, Hainan, Hunan [Vietnam].


赤楠 chi nan

Shrubs or small trees. Branchlets blackish brown when dry, 4- or 6-angled. Leaves opposite or ternate; petiole ca. 2 mm; leaf blade broadly elliptic, elliptic, orbicular, obovate, or broadly obovate, 1–3 × 0.5–2(–2.2) cm, leathery, abaxially slightly pale when dry, adaxially with numerous small glands, midvein impressed, secondary veins 1–1.5 mm apart, at an angle of 50° with midvein, and abaxially more conspicuous, intramarginal veins very close to margin, base cuneate to broadly cuneate, apex broadly acute, obtuse, or rounded.

Inflorescences terminal, cymes, ca. 3 cm; peduncle 4-ridged. Flower buds ca. 3 mm. Hypanthium obconic, ca. 2 mm. Calyx lobes shallow wavy. Petals 4, white, distinct, ca. 2 mm. Stamens ca. 2.5 mm. Style as long as stamens. Fruit red turning purplish black, globose, 5–7 mm in diam. Fl. Jun–Aug, fr. Oct–Dec.

Sparse forests or scrub in mountains, hills; 200–1200 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, Taiwan, Zhejiang [S Japan, Vietnam].

1a. Leaves opposite; leaf blade broadly elliptic, elliptic, or sometimes broadly obovate, 1.5–3 × 1–2 cm, secondary and intramarginal veins adaxially flattened; branchlets 4-angled .................... 37a. var. buxifolium

1b. Leaves ternate especially apically on branchlets or opposite; leaf blade broadly elliptic, elliptic, orbicular, or sometimes obovate, 1–2.5 × 0.5–1(–2.2) cm, secondary and intramarginal veins adaxially sometimes depressed; branchlets 4- or 6-angled ................. 37b. var. verticillatum

37a. Syzygium buxifolium var. buxifolium

赤楠(原变种) chi nan (yuan bian zhong)

Eugenia microphylla Abel; E. sinensis Hemsley; E. somae Hayata; Syllisium buxifolium (Hooker & Arnott) Meyen & Schauer; Syzygium somae (Hayata) Mori.

Branchlets 4-angled. Leaves opposite; leaf blade broadly elliptic, elliptic, or sometimes broadly obovate, 1.5–3 × 1–2 cm, secondary adaxially inconspicuous, base broadly cuneate to obtuse, apex rounded to obtuse and sometimes with an obtuse cusp.

Sparse forests or scrub in mountains; 200–1200 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi, Sichuan, Taiwan, Zhejiang [S Japan, Vietnam].


轮叶赤楠 lun ye chi nan

Branchlets 4- or 6-angled. Leaves ternate especially apically on branchlets or opposite; leaf blade broadly elliptic, elliptic, orbicular, or sometimes obovate, 1–2.5 × 0.5–1(–2.2) cm, secondary and intramarginal veins adaxially sometimes depressed, base cuneate to broadly cuneate, apex broadly acute, obtuse, or rounded.

• Scrub on mountain slopes, hills; 200–1200 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Jiangxi.


轮叶蒲桃 lun ye pu tao

Eugenia grijsii Hance, J. Bot. 9: 5. 1871; E. pyxophylla Hance.

Shrubs, less than 1.5 m tall. Branchlets blackish brown when dry, slender, 4-angled. Leaves usually ternate; petiole 1–2 mm; leaf blade narrowly oblong to narrowly lanceolate, 1.5–2 × (0.2–)0.5–0.7 cm, leathery, abaxially slightly pale when dry, adaxially dark brown and not glossy when dry, abaxially with numerous small glands, secondary veins asplente, 1–1.5 mm apart, at an angle of ca. 50° with midvein, and abaxially more conspicuous, intramarginal veins very close to margin, base cuneate, apex obtuse to slightly acute. Inflorescences terminal or axillary, cymes, 1–1.5 cm, few-flowered, Flowers white. Hypanthium ca. 2 mm. Calyx lobes very short. Petals 4 or 5, coherent, suborbicular, ca. 2 mm. Stamens ca. 5 mm. Style as long as stamens. Fruit reddish black, globose, 4–5 mm in diam. Fl. May–Jul, fr. Nov–Dec.

• Thickets, open woodlands, streamsides, slopes, valleys; 100–900 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Zhejiang.


倒披针叶蒲桃 dao pi zhen ye pu tao
Shrubs, to 0.6 m tall, branched. Branchlets grayish brown when dry, ridged. Petiole ca. 1 mm; leaf blade oblong-cuneate, 2.2–3 × 0.7–1 cm, leathery, abaxially slightly pale when dry, adaxially grayish brown and not glossy when dry, adaxially with numerous impressed glands, secondary veins 1–1.5 mm apart, at an angle of ca. 45° from midvein, abaxially inconspicuous, and adaxially impressed, intramarginal veins very close to margin, base becoming narrow and cuneate, apex rounded to obtuse. Flowers not seen. Infructescences terminal, cymes, ca. 1 cm, several-fruited. Fruit globose, ca. 4 mm in diam.; persistent calyx 1–1.5 mm; calyx lobes shortly triangular, ca. 0.5 mm. Fr. Sep.

1. Riversides, sandy areas; 700–800 m. Yunnan (Mengla).


四川蒲桃 si chuan pu tao

Trees, small, glabrous. Branchlets blackish brown when dry, ridged, glabrous. Petiole ca. 5 mm; leaf blade ovate-lanceolate, 6–9 × 2–2.5 cm, leathery, abaxially yellowish brown when dry, adaxially blackish brown and not glossy when dry, abaxially with numerous protuberant black glands, secondary veins dense, 1–2 mm apart, and at an angle of ca. 60° from midvein, intramarginal veins ca. 1 mm from margin, both secondary and intramarginal veins abaxially visible and adaxially inconspicuous, base cuneate and decurrent, apex ciliate-obovate. Inflorescences terminal, cymes, ca. 1 cm, 1–3-flowered; peduncle ca. 5 mm; bracts acicular, ca. 1 mm. Hypanthium obconic, ca. 3 mm. Calyx lobes 4, short and obtuse. Petals distinct, ca. 2 mm. Stamens 4–5 mm. Style as long as stamens.

2. Sichuan.

The specific epithet was incorrectly spelled “szechuanense” in FRPS (53(1): 91. 1984).


贵州蒲桃 gui zhou pu tao

Shrubs, to 2 m tall. Branchlets yellowish brown when dry, 4-riddged. Petiole 3–4 mm; leaf blade lanceolate to narrowly oblong, 3–6.5 × 1–1.8 cm, leathery, abaxially yellowish brown when dry, adaxially brownish green and slightly glossy when dry, abaxially glandular, secondary veins numerous, ca. 1 mm apart, at an angle of ca. 45° from midvein, and conspicuous on both surfaces when dry, intramarginal veins ca. 0.5 mm from margin, base cuneate, apex gradually narrowing into an obtuse cusp. Inflorescences terminal, paniculate cymes, 2–4 cm; peduncle ridged; bracts small. Flower buds long ovate, ca. 4 mm. Hypanthium obconic, ca. 3 mm, smooth, apical part cuneate. Calyx lobes inconspicuous. Petals usually 4, distinct, broadly obovate, ca. 3 mm. Stamens 5–8 mm. Style ca. 7 mm. Fruit globose, ca. 6 mm in diam. Fl. May–Jun.

3. Sichuan.

- Broad-leaved evergreen forests, scrub, streamsides, valleys; 500–1000 m. Guangdong, Guangxi, Guizhou, Hubei, Hunan.


滇西蒲桃 dian xi pu tao

Trees, 10–15 m tall. Branchlets blackish brown, 4-angled. Petiole ca. 1 cm; leaf blade elliptic, 8–10 × 2.5–3.5 cm, leathery, abaxially slightly pale when dry, adaxially olive green and glossy when dry, midvein impressed, secondary veins numerous, 2–3 mm apart, and conspicuous on both surfaces, reticulate veins conspicuous between secondary veins, intramarginal veins near margin, base broadly cuneate, apex acuminate and with a ca. 1 cm obtuse cusp. Inflorescences terminal or axillary apically on branchlets, paniculate cymes, 5–10 cm; peduncle very short at most apical part. Flower buds 8–9 × ca. 2.5 mm. Flowers in several-flowered clusters. Hypanthium grayish white. Calyx lobes 1–1.5 mm; obtusely triangular. Anthers rounded. Style ca. 3 mm. Fl. Feb–Apr.

- Open or dense broad-leaved evergreen forests, slopes; 1000–1300 m. S Yunnan.


思茅蒲桃 si mao pu tao

Shrubs or trees, 4–8 m tall. Branchlets grayish brown when dry, ridged; old branches brown, terete. Petiole 3–5 mm; leaf blade elliptic to narrowly elliptic, 4–10 × 1.7–4 cm, leathery, abaxially dark brown when dry, adaxially blackish brown and not glossy when dry, abaxially with numerous raised glands, adaxially with numerous small impressed glands, secondary veins numerous, 2–3.5 mm apart, at an angle of ca. 70° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 1 mm from margin, base cuneate, apex acuminate and sometimes sharply pointed or with an obtuse cusp. Inflorescences terminal or subterminal, paniculate cymes, ca. 1.5 cm, 3–9-flowered; peduncle 2–5 mm. Flower buds obovoid, ca. 3.5 mm. Hypanthium inconspicuous. Petals distinct, ca. 3 mm. Stamens ca. 4 mm. Fruit purple when ripe, ellipsoid-ovoid, 1–1.5 × 0.8–1 cm. Seed 1 per fruit; embryos numerous. Fl. Jul–Aug, fr. Sep–Dec.

- Sparse or dense forests, mountain slopes or summits; 500–1600 m. Guangxi, S Yunnan [Vietnam].


华南蒲桃 hua nan pu tao


Shrubs to trees, to 17 m tall, d.b.h. to 30 cm. Branchlets brown when dry, 4-angled. Petiole 2–5 mm; leaf blade elliptic, 2.5–4 × 7–(1–)2–3 cm, leathery, both surfaces greenish brown when dry, abaxially with raised glands, adaxially glandular, secondary veins 1.5–2 mm apart, at an angle of ca. 70° from midvein, abaxially slightly conspicuous, and adaxially inconspicuous, intramarginal veins less than 1 mm from margin, base broadly cuneate, apex acute to slightly obtuse. Inflorescences terminal or subterminal, cymes, 1.5–2.5 cm. Flower buds obovate, ca. 4 mm. Hypanthium obconic, 2.5–3 mm. Calyx lobes 4, shortly triangular. Petals distinct, obovate, ca. 2.5 mm. Stamens 3–4 mm. Style 3–4 mm. Fruit black, globose, 6–7 mm in diam. Fl. Jun–Aug.

- Broad-leaved evergreen forests; 200–800(–2300) m. Fujian,

**Eugenia kusukusensis** Hayata, Icon. Pl. Formosan. 3: 119. 1913.

Trees, small. Branchlets terete. Petiole 1–2 cm; leaf blade oblong to ovate-lanceolate, 9–14 × ca. 4 cm, leathery, both surfaces glandular, adaxially dark brown and glossy when dry, secondary veins numerous, dense, parallel, 2–3 mm apart, slowly ascending, and conspicuous on both surfaces, intramarginal veins near margin, base cuneate, apex acuminate. Inflorescences terminal, paniculate cymes, ca. 4 × 6 cm, branched. Hypanthium 3–5 mm, obovate. Calyx lobes 5 mm, obconic. Calyx lobes apex slightly revolute, petals coherent. Stamens ca. 1.5 mm. Fruit purplish red, globose, ca. 2 cm in diam. Fl. Apr–May, fr. Nov–Dec.

- Broad-leaved evergreen forests, mountain slopes; 500–800 m. Taiwan (Hengchun Peninsula).


**Eugenia similis** Merrill, Philipp. J. Sci. 1(Suppl.): 106. 1906; Syzygium lanyuense E. C. Chang.

Trees, to 8 m tall. Branchlets light brown, slender; older branchlets dark brown, terete, glabrous. Petiole ca. 1 cm; leaf blade oblong to ovate-lanceolate, ovate-elliptic, or oblong, 7–8 × 3.5–4 cm, subleathery, adaxially glandular punctate, secondary veins 8–9 on each side of midvein, ca. 8 mm apart, and inconspicuous, intramarginal veins 2–3 mm from margin, base attenuate to cuneate, margins slightly revolute, apex cuspidate. Inflorescences axillary, cymes 3–4 cm, few-flowered; branches short, opposite. Flowers pink, ca. 3 mm. Hypanthium campanulate. Calyx lobes broadly triangular, very short. Petals coherent. Stamens numerous, ca. 3 mm; anthers elliptic, small. Style ca. 3 mm; stigma short. Fruit blackish purple, globose, ca. 3 mm in diam., apiculately with a persistent calyx rim. Fl. Apr–May, fr. Sep.

Broad-leaved evergreen forests, hill sides; 100–400 m. Taiwan (Huoshao Dao, Lan Yu) [Philippines].

47. Syzygium odoratum (Loureiro) Candolle, Prodr. 3: 260. 1828.

**Opa odorata** Loureiro, Fl. Cochinch. 1: 309. 1790; Eugenia deckeri Gagnepain; *E. millettiana* Hemsley.

Trees, to 20 m tall, d.b.h. to 30 cm. Branchlets grayish brown when dry, slender, terete or slightly compressed. Petiole 3–5 mm; leaf blade ovate-lanceolate to oval-oblong, 3–7 × 1–2 cm, leathery, abaxially olive green when dry, adaxially glossy and with numerous impressed glands, secondary veins numerous, ca. 2 mm apart, at an angle of ca. 45° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 1 mm from margin, base obtuse to broadly cuneate, apex cuneate-acuminate. Inflorescences terminal or subterminal, paniculate cymes, 2–4 cm. Flower buds obvoid, ca. 4 mm. Hypanthium obovate, ca. 3 mm, corrugate when dry, glaucous. Calyx lobes 4 or 5, short, rounded. Petals white, distinct or coherent. Stamens and style very short. Fruit globose, 6–7 mm in diam., slightly glaucous. Fl. May–Aug, fr. (Sep–)Dec–Jan.

Sparsely forested, broad-leaved evergreen forests in mountains, valleys, stream sides; below 100–400 m. Guangdong, Guangxi, Hainan [Vietnam].


Trees, to 15 m tall. Branchlets reddish brown, thin, terete. Petiole 2–4 mm; leaf blade ovate-lanceolate to elliptic, 5–9 × 1.5–3 cm, leathery, abaxially slightly pale when dry, adaxially reddish brown and glossy when dry, adaxially with numerous impressed glands, secondary veins 11–14 on each side of midvein, intramarginal veins ca. 1 mm from margin, base broadly cuneate, margins slightly revolute, apex caudate-acuminate and with an acumen to 2 cm. Flowers not known. Inflorescences terminal, cymose, ca. 9 cm, sparse. Fruit white, globose, 0.8–1.2 cm in diam. Fr. Apr.

- Broad-leaved evergreen forests, hills. Fujian (Yunxiao).


Trees, to 22 m tall. Branchlets gray when dry, slender, rounded; old branches grayish brown. Petiole 7–12 mm; leaf blade elliptic to obovate-elliptic, 4–10 × 1.5–4.5 cm, thinly leathery, abaxially yellowish brown when dry, adaxially olive green or turning grayish brown when dry, both surfaces with small glands, secondary veins numerous, less than 1 mm apart, and gradually extending into margin, intramarginal veins very close to margin, base broadly cuneate to slightly obtuse, apex broadly and abruptly acuminate and with a 1–1.5 cm acumen. Inflorescences terminal or subterminal, paniculate cymes, 1.5–3 cm, few-branched, 3–9-flowered. Flower buds ca. 2.5 mm. Hypanthium ca. 2 mm, apex plano-truncate. Calyx lobes inconspicuous. Petals coherent. Stamens and style very short. Fruit greenish white, red, or black, globose, 6–7 mm in diam. Fl. Jun–Jul, fr. Aug–Dec.

- Broad-leaved evergreen forests, hills; 300–900(–1100) m. Guangxi, Hainan.


**Eugenia kwangtungensis** Merrill, Sunyatsenia 1: 202. 1934.

Trees, to 5 m tall. Branchlets dark brown when dry, terete or slightly compressed; old branches brown. Petiole 3–5 mm; leaf blade elliptic to narrowly elliptic, 5–8 × 1.5–4 cm, leathery, abaxially brown to reddish brown when dry, adaxially dark brown and not glossy when dry, abaxially glandular, adaxially with numerous impressed glands, secondary veins 3–4 mm apart, at an angle of ca. 60° from midvein, and inconspicuous..
on both surfaces, intramarginal veins ca. 1 mm from margin, base broadly cuneate to obtuse, apex obtuse to slightly acute. Inflorescences terminal or axillary, paniculate cymes, 2–4 cm; peduncle ± ridged. Flower buds 3–4 mm. Hypanthium obconic, ca. 3 mm. Calyx lobes inconspicuous. Petals white, coherent, ca. 3 mm in diam. Stamens 7–8 mm. Style as long as stamens.


Trees, to 6 m tall. Branchlets gray when dry, compressed, shallowly grooved; old branches reddish brown. Petiole 7–10(–15) mm; leaf blade elliptic, 9–12 × 3.5–6 cm, leathery, abaxially slightly pale when dry, adaxially green when dry, adaxially with conspicuous glands, midvein impressed, secondary veins numerous, slender, dense, and parallel, reticulate veins evident between secondary veins, intramarginal veins ca. 1 mm from margin, base cuneate, apex slightly acute to acuminate and with an obtuse acumen. Inflorescences terminal, paniculate cymes, 3–9 cm. Hypanthium broadly obconic, ca. 5 × 5 mm, base contracted. Calyx lobes 1.5–2 × ca. 2 mm, apex rounded. Petals coherent. Stamens numerous, longer than petals; anthers ca. 0.8 mm. Style ca. 1 cm. Fruit purplish black, ellipsoid-ovoid, 1–1.5 cm. Fl. Sep–Nov, fr. Dec–Feb.


Eugenia densinervium var. densinervium occurs in the Philippines.
55a. Syzygium myrsinifolium var. myrsinifolium

55b. Syzygium myrsinifolium var. grandiflorum

57a. Syzygium cumini var. cumini

57b. Syzygium cumini var. tsoi

58. Syzygium fruticosum

水竹蒲桃花 shui zhu pu tao


Shrubs, 1–3 m tall. Branchlets brown when dry, terete. Petiole ca. 2 mm; leaf blade linear-lanceolate, 3–8 × 0.7–1.4 cm, leathery, abaxially yellowish brown when dry, adaxially dark brown and not glossy when dry, abaxially with numerous small raised glands, adaxially with numerous impressed glands, secondary veins numerous, 1.5–2 mm apart, at an angle of ca. 40° from midvein, adaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 0.3 mm from margin, base gradually narrowed, apex obtuse to slightly rounded. Inflorescences axillary, cymes, 1–2 cm. Fl. Apr–Jul, fr. Sep–Nov.

- Dense or sparse forests, scrub, hills, slopes; 100–800(–1200) m. Fujian, Guangdong, Guangxi, Hainan.

59. Syzygium hancei

卫矛叶蒲桃 wei mao ye pu tao


Trees, to 12 m tall. Branchlets gray when dry, terete or compressed, pubescent; old branches grayish white. Petiole 8–10 mm; leaf blade elliptic to broadly elliptic, 5–9 × 3–4 cm, thinly leathery, both surfaces grayish green when dry and with numerous small glands, adaxially not glossy, secondary veins 2–3 mm apart, at an angle of ca. 60° from midvein, abaxially slightly raised, and adaxially conspicuous, intramarginal veins ca. 1 mm from margin, base cuneate and decurrent, apex acuminate and with a 1–1.5 cm cusp. Inflorescences axillary, cymes, ca. 1 cm, 6–11-flowered. Flower buds ca. 2.5 mm. Hypanthium obconic, 1.5–2 mm, glandular punctate. Calyx lobes 4, short, obtuse. Petals white, distinct, rounded, ca. 2 mm. Stamens 2.5–3 mm. Style as long as stamens. Fruit black when ripe, globose, 6–7 mm in diam. Fl. Jul–Sep, fr. Nov–Jan.

- Dense forests; low elevations. Hainan (Baoting).


卫矛叶蒲桃 wei mao ye pu tao


Trees, to 12 m tall. Branchlets gray when dry, terete or compressed, pubescent; old branches grayish white. Petiole 8–10 mm; leaf blade elliptic to broadly elliptic, 5–9 × 3–4 cm, thinly leathery, both surfaces grayish green when dry and with numerous small glands, adaxially not glossy, secondary veins 2–3 mm apart, at an angle of ca. 60° from midvein, abaxially slightly raised, and adaxially conspicuous, intramarginal veins ca. 1 mm from margin, base cuneate and decurrent, apex acuminate and with a 1–1.5 cm cusp. Inflorescences axillary, cymes, ca. 1 cm, 6–11-flowered. Flower buds ca. 2.5 mm. Hypanthium obconic, 1.5–2 mm, glandular punctate. Calyx lobes 4, short, obtuse. Petals white, distinct, rounded, ca. 2 mm. Stamens 2.5–3 mm. Style as long as stamens. Fruit black when ripe, globose, 6–7 mm in diam. Fl. Jul–Sep, fr. Nov–Jan.

- Dense or sparse forests, scrub, hills, slopes; 100–800(–1200) m. Fujian, Guangdong, Guangxi, Hainan.


假赤楠 jia chi nan

Shrubs or trees, to 3 m tall. Branchlets grayish white when dry, terete, slender. Petiole 3–4 mm; leaf blade elliptic, 3–4 × 1.5–2 cm, leathery, both surfaces olive green when dry, abaxially with raised glands, adaxially not glossy and with numerous small impressed glands, secondary veins ca. 2 mm apart, at an angle of ca. 45° from midvein, abaxially slightly visible, and adaxially inconspicuous, reticulate veins inconspicuous, intramarginal veins ca. 0.5 mm from margin, base broadly cuneate, apex acuminate. Inflorescences axillary, cymes, ca. 1 cm, few-flowered. Flower buds 3–4 mm. Fruit globose, 1–1.2 cm in diam., 1-seeded; persistent calyx limbs ca. 1 × 2.5 mm. Fl. Nov.

- Dense forests; low elevations. Hainan (Baoting).


海南蒲桃 hai nan pu tao

Trees, to 5 m tall. Branchlets brown when dry, terete; old branches grayish white. Petiole 1–1.5 cm; leaf blade elliptic, 8–11 × 3.5–5 cm, leathery, abaxially reddish brown when dry, adaxially brown and slightly glossy when dry, adaxially with numerous glands, secondary veins numerous, 1–1.5 mm apart, at an angle of 75°–80° from midvein, abaxially raised, and adaxially visible, intramarginal veins ca. 1 mm from margin, base broadly cuneate, apex acute and with a 1.5–2 cm cusp. Flowers not seen. Infructescence axillary, cymose. Fruit ellipsoid to obovoid, 1.2–1.5 × 0.8–0.9 cm; persistent calyx lobes ca. 0.5 × 4 mm. Seeds 2 per fruit, 6–7 × 6–7 mm.

- Forests; low elevations. Hainan (Changjiang).


线枝蒲桃 xian zhi pu tao

Trees, to 10 m tall. Branchlets brown when dry, very slender, terete. Petiole 2–3 mm; leaf blade ovate-long lanceolate, 3–5.5 × 1–1.5 cm, leathery, abaxially with numerous small glands, adaxially olive green when dry, secondary veins numerous, ca. 1.5 mm apart, at an angle of ca. 70° from midvein, and inconspicuous on both surfaces, intramarginal veins ca. 1 mm from margin, base broadly cuneate, apex long cuneate-acuminate and with a ca. 2 cm acute and curved acumens. Inflorescences terminal or axillary, cymes, ca. 1.5 cm. Flower buds shortly clavate,
7–8 mm. Hypanthium ca. 7 mm, corrugate when dry, glaucous. Calyx lobes 4 or 5, triangular, ca. 0.8 mm, apex acute. Petals white, faintly fragrant, 4 or 5, distinct, ovate, ca. 2 mm. Stamens 3–4 mm. Style ca. 5 mm. Fruit subglobose, 5–7 × 4–6 mm. Fl. May–Jun, fr. Nov.

Rain forests; 300–1100 m. Guangxi, Hainan [Vietnam].


锡兰蒲桃
xilan putao

Myrtus zeylanica Linnaeus, Sp. Pl. 1: 472. 1753; Eugenia varians Miquel; E. zeylanica (Linnaeus) Wight; Jambosa bracteata Miquel; Syzygium myrtifolium Miquel.

Trees, to 12 m tall. Branchlets yellowish brown when dry, terete; old branches grayish brown. Petiole 4–7 mm; leaf blade thinly long ovate to ovate-oblong, 8–10.5 × 3–4.5 cm, leathery, abaxially yellowish brown when dry, adaxially olive green and glossy when dry, secondary veins numerous, 2–3 mm apart, at an angle of 80°–85° from midvein, abaxially slightly raised, and adaxially conspicuous, intramarginal veins ca. 1 mm from margin, base rounded to obtuse, apex acuminate to mucronate. Inflorescences terminal or sub-terminal, paniculate cymes, 2–4 cm; peduncle slender. Flower buds clavate, ca. 7 mm. Hypanthium 5–6 mm. Calyx lobes 4 or 5, reniform rounded, ca. 1 mm. Petals pale yellow, distinct, obovate, 3–4 mm. Stamens longer than petals. Fruit white, globose, 5–6 × ca. 7 mm. Fl. Apr–Jul, fr. Nov.

Forests or woodland margins. W Guangdong, S Guangxi [Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam].


黑长叶蒲桃
heichangyeputao

Trees, to 16 m tall. Branchlets yellowish brown when dry, terete; Petiole 1–2 cm; leaf blade narrow oblong to lanceolate, 14–20 × 4–5.5 cm, leathery, abaxially blackish brown when dry, adaxially black and glossy when dry, both surfaces coarse or sometimes smooth, adaxially usually pubescent, secondary veins 23–32 on each side of midvein, 5–8 mm apart, at an angle of ca. 55° from midvein, and conspicuously raised on both surfaces, reticulate veins conspicuous, intramarginal veins 1.5–2 mm from margin, base cuneate, apex acuminate and with a slightly obtuse cusp. Flowers not seen. Infructescences terminal, cymose, ca. 7 cm; peduncle 1–1.5 cm. Fruit globose, ca. 2 cm in diam. (immature), glaucous; pericarp thick, fleshy. Fl. Apr–May.

Secondary forests, mountain slopes; ca. 1400 m. Yunnan (Hengchun Peninsula).


短序蒲桃
duanxuputao

Trees, 5–12 m tall. Branchlets grayish brown when dry, slender, terete or slightly compressed. Petiole blackish brown, ca. 1 cm, slender; leaf blade elliptic to elliptic-ovate, 8–12 × 2.5–5 cm, stiffer papery, abaxially yellowish brown when dry, adaxially dark brown when dry, secondary veins numerous, 1–2 mm apart, slowly ascending, abaxially raised, adaxially obvious, reticulate veins sparse, intramarginal veins close to margin, base cuneate, apex ciliate-acuminate and with a ca. 1.5 cm cusp. Infructescences terminal, cymes; peduncle 1–1.5 cm, secondary branches very short. Flower buds ca. 6 × 4.5 mm. Hypanthium ellipsoid. Calyx lobes 4, semi-ovariculate, ca. 1 × 2 mm, apex obtuse. Petals pale green, distinct, ovate, ca. 3 mm. Stamens 2–3 mm. Fruit red, globose, 1.5–2 cm in diam. Fl. Jun–Aug, fr. Aug–Oct.

● Broad-leaved evergreen forests, mountain slopes; 1800–2000 m. SE Yunnan.


细叶蒲桃
xiyeputao


Shrubs or trees, 3–6 m tall, d.b.h. to 7 cm. Branchlets grayish white when dry, subterete to slightly angled, slender. Petiole ca. 1 cm; leaf blade ovate to elliptic, 5–6 × 2–3 cm, stiffer papery, abaxially brownish when dry, adaxially dark olive green and not glossy when dry, abaxially with conspicuous glands, adaxially with minute glands, secondary veins numerous, 2 mm apart, at an angle of ca. 65° from midvein, and slightly raised on both surfaces when dry, base cuneate, apex acuminate and with an obtuse cusp. Infructescences terminal, paniculate cymes, 2- or 3-branched, few-flowered. Hypanthium campanulate, ca. 3 × 3.5 mm. Calyx lobes 4, ca. 0.5 mm, apex very obtuse. Petals 4, rounded, ca. 3 mm. Stamens 3–5 mm. Style ca. 6 mm. Fruit purplish red to dark red, ellipsoid, ca. 1.5 × 1 cm. Fl. Jun–Jul, fr. Dec–Jan.

● Broad-leaved evergreen forests, mountain slopes; 400–700 m. Taiwan.


尖峰蒲桃
jianfengputao

Trees. Branchlets dark grayish brown, terete or obtusely ridged. Petiole 4–7 mm; leaf blade oblong, 5–7.5 × 2.5–3.5 cm, leathery, abaxially brownish when dry, adaxially grayish brown and slightly glossy when dry, adaxially with numerous small glands, secondary veins 2–3 mm apart, at an angle of ca. 60° from midvein, abaxially slightly visible, and adaxially inconspicuous, intramarginal veins ca. 1 mm from margin, base cuneate and decurrent, apex acuminate to mucronate. Flowers not seen. Infructescences terminal, cymose. Fruit globose, ca. 1 cm in diam., 1-seeded. Fl. Jan.

● Sparse forests. SW Hainan (Ledong).


万宁蒲桃
wanningputao

Trees, to 10 m tall, d.b.h. to 30 cm. Branchlets gray when dry, terete, grooved. Petiole ca. 3 mm; leaf blade broadly ellip-


mm. Calyx lobes 4, semiobtuse, ca. 1 × 2.5 mm. Petals distinct, broadly ovate, ca. 2.5 mm. Stamens 5–8 mm. Style as long as stamens. Fruit black when dry, globose, ca. 1.2 cm in diam. Fl. Apr, fr. Aug–Oct.

Broad-leaved evergreen forests, open slopes, valleys; 600–1000–(1200) m. S Yunnan [Laos, Malaysia, Myanmar, Thailand].


Trees, 12–20 m tall, d.b.h. to 40 cm. Branchlets dark brown when dry, terete. Petiole less than 1 cm; leaf blade elliptic to long elliptic, 9–12 × 4–6 cm, leathery, abaxially slightly colored when dry, adaxially grayish brown and dull or glossy when dry, abaxially with numerous small glands, adaxially with inconspicuous glands, midvein impressed, secondary veins numerous, 2–3 mm apart, and nearly extending horizontally, intramarginal veins less than 1 mm from margin, base rounded to broadly cuneate, apex acuminate. Inflorescences terminal or a few axillary, paniculate cymes, 4–7 mm, branched; peduncle short. Hypanthium obconic, 4–5 mm. Calyx lobes 4(or 5), shortly angular, ca. 1 × 2–3 mm. Petals 4, white, coherent, ovate, ca. 5 mm. Stamens longer than petals. Style nearly as long as stamens. Fruit globose, 1–1.5 cm in diam., 1-seeded; persistent calyx limb ca. 1.5 mm. Fl. Apr–May, fr. Nov–Jan.

Open to dense forests, mountain slopes, streamsides; 500–1000 m. Xizang (Cona), S Yunnan [Bangladesh, Cambodia, India, Indonesia (Kalimantan), Malaysia, Thailand, Vietnam].


Trees. Branchlets blackish brown when dry, terete; old branches brown. Petiole 1–1.2 cm; leaf blade elliptic, 6.5–9.5 × 3–4 cm, leathery, abaxially reddish brown when dry, adaxially with numerous small glands, secondary veins dense, 1–1.5 mm apart, at an angle of ca. 80° from midvein, abaxially slightly raised, and adaxially inconspicuous, intramarginal veins ca. 1 mm from margin, base obtuse to broadly cuneate and usually oblique, apex acute and with a 5–10 mm cusp. Inflorescences terminal or subterminal, paniculate cymes, 4–6 cm; peduncle 2–3 cm; secondary peduncle 1–1.5 cm. Flower buds obovoid, ca. 6 mm. Hypanthium obconic, 4–5 mm. Calyx lobes shortly angular. Petals distinct, suborbicular, ca. 2.5 mm in diam. Stamens ca. 3 mm. Style 4–5.5 mm. Fl. Nov.

Dense forests in valleys, on rocks next to water. Hainan (Dongfeng).


Trees, to 14 m tall. Branchlets blackish brown when dry, terete; old branches brown. Petiole 1–1.2 cm; leaf blade elliptic, 6–8 × 3–4 cm, leathery, abaxially reddish brown when dry, adaxially with numerous small glands, secondary veins dense, 1–1.5 mm apart, at an angle of ca. 75° from midvein, abaxially visible but slender, and adaxially inconspicuous, intramarginal veins less than 1 mm from margin, base wide and obtuse, apex acuminate and with a 1–1.5 cm cusp. Inflorescences terminal, paniculate cymes, 8–10 cm, 3-branched, many-flowered. Flower buds pyriform, 6–7 mm. Hypanthium obconic, 4 mm. Calyx lobes oblong, ca. 5 mm. Stamens 5–7 mm. Style 6–7 mm. Fruit ellipsoid, ca. 1 cm. Fl. Apr.

Guangxi [Indonesia, Malaysia, Myanmar, Thailand, Vietnam].