

1. HYPERICUM Linnaeus, Sp. Pl. 2: 783. 1753.

金丝桃属 jin si tao shu

Li Xiwen (李锡文 Li Hsi-wen); Norman K. B. Robson

Sarothra Linnaeus.

[Trees or] shrubs, subshrubs, or perennial herbs, glabrous or with simple hairs, with translucent (“pale”) and often opaque, black or reddish (“dark”) glands, laminar (immersed and sometimes abaxial) and marginal or intramarginal. Leaves opposite [or whorled], sessile or short petiolate, venation pinnate to palmate [or rarely dichotomous], margin entire or gland-fringed. Inflorescence cymose. Flowers bisexual, homostylous [or heterostylous], stellate or cupped. Sepals 5 and quincuncial or rarely 4 and decussate, unequal or equal, free or partly united. Petals (4 or)5, contorted, golden to lemon yellow [or rarely white], abaxially sometimes tinged or veined red, persistent or deciduous after anthesis, usually asymmetric. Stamens in [4 or]5 fascicles, free and antipetalous, or some united to form apparently 4 or 3 fascicles with compound fascicle(s) antisealous, or irregular and apparently not fasciculate, persistent or deciduous, each single fascicle with up to 70[–120] stamens; filaments slender, free from nearly base [or to 2/3 united] or apparently completely free; anthers small, dorsifixed or \pm basifixed, dehiscing longitudinally, with gland on connective; sterile fascicles (fasciculates) absent [very rare]. Ovary 3–5-loculed with axile placentae or \pm completely 1-loculed with (2 or)3[–5] parietal placentae, each placenta with [2 or] few to many ovules; styles (2 or)3–5, free or partly to completely united, \pm slender; stigmas small or \pm capitate. Fruit a septicidal capsule or rarely \pm indehiscent, valves often with oil-containing vittae or vesicles. Seeds small, often carinate or narrowly unilaterally winged; testa variously sculptured, not arillate [very rarely carunculate]; embryo slender, straight, with distinct slender cotyledons.

About 460 species: almost cosmopolitan except for arctic and desert areas and most of the lowland tropics; 64 species (33 endemic) in China.

Species of *Hypericum* are distributed nearly throughout China but are most abundant in the southwest and rare in Xinjiang.

In addition, *Hypericum prolificum* Linnaeus, a North American species in *H.* sect. *Myriandra* (Spach) R. Keller, has been recorded (as *H. densiflorum* Pursh) from Jiangxi (Lushan).

- 1a. Petals and stamens deciduous after anthesis (rarely tardily); shrubs or rarely subshrubs; plant always without dark glands.
- 2a. Styles completely united; anthers \pm basifixed.
 - 3a. Sepals 1–3 mm, mostly broadly ovate to oblong, usually obtuse to rounded, without distinct midvein 33. *H. geminiflorum*
 - 3b. Sepals 3.5–10 mm, mostly lanceolate or narrowly elliptic to linear, acute to subacute (or rarely rounded), often with distinct midvein.
 - 4a. Stems 4-angled or 4-winged when mature; leaves usually narrowly elliptic to lanceolate, acute to subacute 34. *H. subalatum*
 - 4b. Stems terete when mature; leaves ovate to elliptic or obovate, subacute to rounded.
 - 5a. Sepals obovate to lanceolate, 7–10 mm, ascending in fruit; petals 10–20 mm; leaves ovate to elliptic 31. *H. formosanum*
 - 5b. Sepals linear-lanceolate, 3.5–8 mm, reflexed in fruit; petals 20–28 mm; leaves elliptic to obovate 32. *H. nakamurae*
- 2b. Styles free or partly united; anthers markedly dorsifixed.
 - 6a. Leaves (at least upper) sessile, thickly leathery, without visible reticulate venation abaxially; styles free 1. *H. augustinii*
 - 6b. Leaves all subsessile or short petiolate or, if sessile, then visibly \pm densely reticulate-veined abaxially and/or with styles \pm united.
 - 7a. Stem prostrate to ascending or pendent, forming low mats or clumps; styles ca. as long as ovary 2. *H. reptans*
 - 7b. Stem erect to straggling, not mat-forming.
 - 8a. Styles partly coherent or \pm united, at least $1.4 \times$ as long as ovary; leaves usually densely reticulate-veined abaxially (except in 8. *H. longistylum*).
 - 9a. Styles coherent in lower half at first.
 - 10a. Leaves sessile, blade ovate-oblong to ovate, venation densely reticulate 3. *H. griffithii*
 - 10b. Leaf petiole 1.5–2 mm, blade oblong to elliptic, venation laxly reticulate 5. *H. cohaerens*
 - 9b. Styles united nearly to apex; petiole absent or to 1.5 mm (except in 4. *H. monogynum*).
 - 11a. Suffrutex; petals and stamens tardily deciduous 7. *H. elatoides*
 - 11b. Shrub; petals and stamens soon deciduous.
 - 12a. Leaves without visible reticulate venation abaxially, 1–3.3 cm; inflorescence always 1-flowered 8. *H. longistylum*
 - 12b. Leaves densely reticulate-veined abaxially, (2–)3–11 cm; inflorescence 1–30-flowered, terminal on long shoots.
 - 13a. Leaves with base cuneate to rounded, or if cordate then apex rounded; leaf blade usually broadest at or above middle 4. *H. monogynum*

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- 13b. Leaves with base cordate-amplexicaul, apex acute to acuminate; leaf blade elliptic-ovate to broadly ovate 6. *H. prattii*
- 8b. Styles free, usually less than $1.4 \times$ as long as ovary; leaves usually laxly or not visibly reticulate-veined abaxially.
- 14a. Leaves sessile, densely reticulate-veined 3. *H. griffithii*
- 14b. Leaves subsessile or petiolate, laxly or not visibly reticulate-veined.
- 15a. Petals waxy, golden yellow; stamens $0.25\text{--}0.35 \times$ as long as petals, densely crowded.
- 16a. Sepals spreading-incurred in bud and in fruit, often becoming markedly ribbed; capsule ovoid to ovoid-conic 11. *H. hookerianum*
- 16b. Sepals erect to spreading in bud, spreading to recurved in fruit, not ribbed; capsule narrowly ovoid-cylindric to narrowly ellipsoid-cylindric.
- 17a. Leaves narrowly ovate to lanceolate, base rounded, with dense abaxial glands and short laminar glandular streaks; sepals spreading in bud, reflexed in fruit 9. *H. fosteri*
- 17b. Leaves narrowly lanceolate, base cuneate, without abaxial glands, with long laminar glandular streaks; sepals erect in bud, spreading in fruit 10. *H. wardianum*
- 15b. Petals not waxy, golden to pale yellow; stamens longer than $0.35 \times$ as long as petals or, if equal or shorter, then not densely crowded.
- 18a. Sepals spreading to recurved at anthesis and in fruit; leaf venation often markedly reticulate or at least conspicuous abaxially (except in 13. *H. acmosepalum*).
- 19a. Leaves elliptic to oblong or (lower) oblanceolate (broadest at or above middle), never triangular; sepals deciduous or outcurving.
- 20a. Leaves subsessile, narrowly elliptic, markedly reticulate-veined; sepals deciduous, spreading, ovate to elliptic, often leaflike; capsule 16–21 mm, purplish red when maturing 12. *H. subsessile*
- 20b. Leaves petiolate (0.5–1.5 mm), narrowly elliptic to oblong, not reticulate-veined but with conspicuous intramarginal vein; sepals persistent, ovate to narrowly lanceolate, not leaflike; capsule 9–15 mm, bright red at first when maturing 13. *H. acmosepalum*
- 19b. Leaves ovate or lanceolate to oblong-lanceolate (broadest below middle), sometimes triangular; sepals persistent, spreading to recurved.
- 21a. Sepals elliptic to oblong or foliose; leaves lanceolate to ovate-lanceolate, \pm triangular, with venation (secondary and sometimes tertiary) conspicuous.
- 22a. Petals obovate-oblanceolate, flowers stellate; stamens ca. $3/5$ as long as petals; styles $0.85\text{--}1 \times$ as long as ovary; leaves densely glaucous abaxially, petiole 0.5–2 mm 14. *H. maclarenii*
- 22b. Petals broadly obovate to obovate-suborbicular, flowers shallowly to deeply cupped; stamens $0.35\text{--}0.4 \times$ as long as petals; styles $0.35\text{--}0.7 \times$ as long as ovary; leaves thinly or not glaucous abaxially, petiole 2–4 mm 15. *H. choisyanum*
- 21b. Sepals lanceolate-elliptic to lanceolate (or rarely leaflike); leaves lanceolate to oblong or ovate, not triangular, usually without conspicuous venation.
- 23a. Styles shorter than ovary; inflorescence 1(–3)-flowered; leaves triangular-lanceolate to triangular-ovate 18. *H. curvisepalum*
- 23b. Styles ca. as long as ovary or more; inflorescence (1–)3–14-flowered; leaves oblong-lanceolate or lanceolate to narrowly ovate.
- 24a. Styles outcurved distally; inflorescence branches usually relatively stout; leaf abaxial glands usually few or none 16. *H. lancasteri*
- 24b. Styles straight or flexuous; inflorescence branches relatively slender; leaf abaxial glands dense 17. *H. stellatum*
- 18b. Sepals erect and outcurving or appressed in flower and fruit; leaf venation neither visibly reticulate nor conspicuous.
- 25a. Sepals with broad hyaline margin; stems erect to arching with \pm numerous lateral branches, often frondose, markedly ancipitous (2-edged) when young.
- 26a. Sepals entire, at least outer broadly elliptic or broadly oblong to circular, obtuse to rounded; stems erect, not frondose 19. *H. henryi*
- 26b. Sepals eroded-denticulate or, if entire, then elliptic or narrowly oblong to oblanceolate, rounded to acute; stems erect or spreading, sometimes frondose.
- 27a. Sepals eroded-denticulate to subentire, usually apiculate, broadly elliptic to broadly ovate; leaf apex usually apiculate-obtuse to rounded.
- 28a. Stems erect to arching or rarely divaricate, not frondose, \pm persistently 4-lined; leaf-apex acute to rounded but rarely apiculate; capsule 10–14 mm 19. *H. henryi*
- 28b. Stems spreading, sometimes frondose, soon 2-lined; leaf-apex obtuse to rounded, always apiculate; capsule 9–11 mm 20. *H. patulum*

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- 27b. Sepals entire, rarely apiculate, elliptic to narrowly oblong or obovate-spatulate; leaf apex acute to rounded-apiculate.
- 29a. Flower buds acute to obtuse; sepals subacute to rounded; stems erect or arching, not or only distally frondose 19. *H. henryi*
- 29b. Flower buds obtuse to rounded; sepals rounded; stems arching, often frondose 21. *H. uralum*
- 25b. Sepals without or with a very narrow hyaline margin; stems erect to spreading but not frondose, not or scarcely ancipitous (2-edged) when young.
- 30a. Stems slender, spreading especially when young; capsules lobed or grooved.
- 31a. Styles 0.5–0.85 × as long as ovary; sepals with inconspicuous midvein, outcurving in fruit; flower buds ovoid to ovoid-pyramidal, obtuse to acute 22. *H. lagarocladum*
- 31b. Styles 1.5–1.8 × as long as ovary; sepals with conspicuous midvein, erect in fruit; flower buds narrowly ovoid, acute to acuminate 23. *H. wilsonii*
- 30b. Stems stout, erect to arching but not spreading; capsules not lobed or grooved.
- 32a. Styles 1.2–1.35 × as long as ovary; petals spreading to reflexed, apiculus acute; sepals acute, spreading in fruit 28. *H. kouytchense*
- 32b. Styles 0.6–1.1 × as long as ovary; petals incurved to spreading, apiculus obtuse to rounded; sepals acute to rounded, spreading to erect in fruit.
- 33a. Sepals ± spreading in bud and sometimes in fruit; ovary and capsule narrowly cylindrical-ellipsoid to broadly pyramidal-ovoid; leaf apex acute to rounded-apiculate 24. *H. beanii*
- 33b. Sepals erect in bud and erect or incurved in fruit; ovary and capsule ovoid to subglobose or pyramidal-ovoid; leaf apex obtuse to rounded.
- 34a. Leaves broadly elliptic or very broadly elliptic-oblong to orbicular, margin plane 24. *H. beanii*
- 34b. Leaves lanceolate to broadly ovate or, if circular, then margin undulate.
- 35a. Branches spreading; sepals acute to rounded-apiculate; stamens ca. 0.4 × as long as petals; leaves with lower 1 or 2 pairs of main lateral veins usually free 25. *H. addingtonii*
- 35b. Branches erect to arching; sepals acute to rounded; stamens ca. 0.5 × as long as petals or more, or, if relatively shorter, then sepals rounded; leaves with all main lateral veins incurved to join next upper vein.
- 36a. Ovary and capsule subglobose to broadly or narrowly ovoid; leaves lanceolate to ovate, rhombic, or subcircular; sepal margin not or scarcely hyaline.
- 37a. Sepals ovate to broadly elliptic, obtuse or apiculate to rounded; capsule broadly ovoid; flowers 4–6 cm in diam.; stamens (0.5–)0.6–0.7 × as long as petals; leaf ratio (l:w) = 1.8–2.5, base cuneate to rounded, margin plane 26. *H. latisepalum*
- 37b. Sepals narrowly elliptic or oblong to obovate, usually rounded; capsule narrowly ovoid; flowers 2.5–3.5 cm in diam.; stamens 0.35–0.45(–0.6) × as long as petals; leaf ratio (l:w) = 1.1–1.6, base truncate to subcordate or, if cuneate, then margin undulate 27. *H. bellum*
- 36b. Ovary and capsule pyramidal-ovoid; leaves triangular-lanceolate or lanceolate-oblong to ± broadly triangular-ovate; sepal margin distinctly hyaline.
- 38a. Sepals acute to obtuse, outcurved in fruit; stems ± persistently 4-lined; leaves usually lanceolate or lanceolate-oblong to ovate-oblong; petals spreading to reflexed; flower buds subacute to apiculate 29. *H. pseudohenryi*
- 38b. Sepals rounded or rarely apiculate, erect in fruit; stems soon terete; leaves triangular-ovate or, more rarely, lanceolate or ± broadly ovate; petals incurved; flower buds rounded 30. *H. forrestii*
- 1b. Petals and stamens persistent after anthesis; herbs; plant very often with dark glands.
- 39a. Styles (4 or)5; stamen fascicles 5, free; dark glands absent.
- 40a. Leaf apex acute to obtuse, blade mostly lanceolate to elliptic-oblong or linear; mature stem internodes sharply 4-lined to narrowly 4-winged 35. *H. ascyron*
- 40b. Leaf apex rounded to shallowly retuse, blade oblong to oblong-lanceolate, oblong-ovate, or triangular-oblong; mature stem internodes partially 2- or 4-lined or terete 36. *H. przewalskii*
- 39b. Styles (2 or)3(or 4); stamen fascicles usually apparently 3 or stamens irregularly arranged; dark glands usually present.
- 41a. Dark glands absent; stem internodes 4-lined or narrowly 4-winged; stamens irregularly arranged.
- 42a. Stamens 30–40, styles 0.7–1.8 mm; stems branching strictly from base or unbranched, not rooting; leaves ovate-lanceolate to linear (l:w = 3–5) 63. *H. gramineum*
- 42b. Stamens 5–30, styles 0.4–1 mm; stems usually branching ± widely along most of stem, rooting at base; leaves usually ovate or triangular-ovate to oblong or elliptic (l:w = 1.5–2.5) 64. *H. japonicum*

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- 41b. Dark (black or reddish) glands present on at least sepals and/or anthers or leaves; stem internodes 2-lined or terete; stamens usually apparently 3(or 4)-fascicled.
- 43a. Anther gland amber; dark glands sometimes present on leaves but not forming inframarginal row; seeds with testa \pm markedly papillose.
- 44a. Stem and leaves pubescent; inflorescence usually pyramidal; sepals gland-fringed; stems creeping and rooting 62. *H. hirsutum*
- 44b. Stem and leaves glabrous; inflorescence \pm cylindric or flat-topped; sepal margin with few or no glands; stems not creeping or rooting.
- 45a. Inflorescence \pm cylindric; stem smooth 60. *H. elongatum*
- 45b. Inflorescence flat-topped; stem scabrid with red-gland-tipped emergences 61. *H. scabrum*
- 43b. Anther gland dark; dark glands nearly always forming inframarginal row on leaves; seeds with testa reticulate to foveolate.
- 46a. Stem internodes markedly 2(or 4)-lined.
- 47a. Capsule valves with central linear and lateral vesicular glands; stems much branched distally with branching divergent-ascending and black glands confined to lines 57. *H. perforatum*
- 47b. Capsule valves with linear glands only; stems sparingly branched below inflorescence with branching virgate and black glands not confined to lines or completely absent.
- 48a. Stems with dark glands, erect; capsule broadly ovoid to narrowly conic; stamens apparently 3-fascicled 56. *H. attenuatum*
- 48b. Stems without dark glands, suberect to ascending; capsule broadly to narrowly ovoid; stamens irregularly arranged.
- 49a. Sepals without dark laminar streaks or, if present, then apex obtuse; leaves variable in size and shape but, if less than 15 mm, then narrow (l:w = 4–12) 58. *H. nagasawae*
- 49b. Sepals with dark laminar streaks, apex acute to subacuminate; leaves short (4–12 mm) and broad (l:w = 2–3.1) 59. *H. nokoense*
- 46b. Stem internodes terete or rarely 2–4(–6)-lined when stems weak or slender.
- 50a. Leaf pairs perfoliate; capsule valves with vesicular glands only 37. *H. sampsonii*
- 50b. Leaf pairs free; capsule valves with longitudinal vittae only.
- 51a. Leaves and sometimes sepals and petals with laminar glands dark only.
- 52a. Sepals entire, sepals and petals 4.
- 53a. Leaves sessile, triangular-ovate to narrowly elliptic, not minutely papillose; stems usually unbranched below inflorescence 55. *H. erectum*
- 53b. Leaves petiolate, oblong to obovate, adaxially minutely papillose; stems branching from most nodes 53. *H. ensiense*
- 52b. Sepals glandular-ciliate or, if entire, then sepals and petals 4.
- 54a. Styles 4–5 mm; capsule broadly ovoid; uppermost leaf pair bracteose; sepals and petals 5 47. *H. trigonum*
- 54b. Styles 1.5–3 mm; capsule globose; uppermost leaf foliar; sepals and petals 4 50. *H. monanthemum*
- 51b. Leaves, sepals, and petals with laminar glands (if present) partly or completely pale.
- 55a. Sepals entire, oblong to ovate-oblong, obtuse (or rarely acute) to rounded, not leaflike.
- 56a. Leaf laminar glands mostly black 53. *H. ensiense*
- 56b. Leaf laminar glands all or mostly pale or absent.
- 57a. Leaves without or rarely with a few large pale or pale and dark laminar glands, main lateral veins 2- or 3-paired 52. *H. faberi*
- 57b. Leaves with dense small pale laminar glands; main lateral veins 3–4-paired 54. *H. taihezanense*
- 55b. Sepals dark-gland-fringed or, if entire, then acute or leaflike.
- 58a. Leaves with laminar glands large, prominent, dense; leaf blade usually lanceolate or narrowly elliptic to linear or obovate; marginal glands round-topped.
- 59a. Sepals entire or occasionally with few glandular cilia; bracts without or with short glandular auricles; leaves entire.
- 60a. Leaves with petiole 1–10 mm, base usually cuneate to angustate; sepals with few irregularly spaced marginal glands or none; styles 1–2.5 mm, 0.7–1.3 \times as long as ovary 39. *H. petiolulatum*
- 60b. Leaves sessile or with broad petiole to 1 mm, base subcordate-amplexicaul to cuneate; sepals with marginal glands in \pm regular row; styles 2.5–10 mm, 1.5–3 \times as long as ovary.
- 61a. Leaves oblong-lanceolate to narrowly oblong, 5–13 mm wide; sepal and petal laminar glands pale 38. *H. seniawinii*
- 61b. Leaves oblong-ovate, 10–16 mm wide; sepal and petal laminar glands black 40. *H. hubeiense*
- 59b. Sepals regularly glandular-ciliate; bracts and sometimes upper leaves glandular-ciliate and with glandular-ciliate auricles.

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- 62a. Leaves broadly ovate-oblong or broadly elliptic to suborbicular, 6–14 mm, entire, apex rounded, without glandular auricles 44. *H. kingdonii*
- 62b. Leaves lanceolate to oblong-lanceolate or linear, 1–6 cm, sometimes glandular-ciliate, apex acute to obtuse, the upper with glandular auricles.
- 63a. Styles ca. 1.7 mm, shorter than ovary; sepals ovate, 3–5 mm; leaves ternate 43. *H. austroyunnanicum*
- 63b. Styles 3–18 mm, longer than ovary; sepals lanceolate to oblong, 5–9 mm; leaves paired.
- 64a. Styles 3–7 × as long as ovary, 6–18 mm; pedicels 0.5–3(–6) mm; petal laminar glands pale 41. *H. hengshanense*
- 64b. Styles ca. 2 × as long as ovary, 3–8 mm; pedicels 3–12 mm; petal laminar glands all or mostly dark 42. *H. elodeoides*
- 58b. Leaves with laminar glands small, not prominent, often sparse, or absent; leaf blade ovate or triangular-ovate to elliptic, oblong, or circular; marginal glands flat-topped.
- 65a. Leaves elliptic-oblong to lanceolate and/or with glandular-ciliate margin and auricles.
- 66a. Ovary and capsule ellipsoid to cylindric-ellipsoid; leaves all sessile, entire; sepals lanceolate to narrowly oblong-elliptic, acute, glandular-ciliate 45. *H. daliense*
- 66b. Ovary and capsule ovoid to globose; leaves (at least upper) glandular-ciliate, lower often petiolate; sepals broadly oblong or ± broadly elliptic, acute to obtuse, glandular-ciliate to -lacinate 46. *H. wightianum*
- 65b. Leaves (triangular-)ovate to elliptic or oblong or obovate to oblanceolate, entire (uppermost pair sometimes bracteose).
- 67a. Ovary and capsule ovoid (or ovary ellipsoid) to subglobose; styles 1.5–3 mm; uppermost leaf pair leaflike.
- 68a. Leaves (at least uppermost) sessile; sepals with pale laminar glandular lines or, if dark, then margin glandular-ciliate; ovary ovoid to subglobose 50. *H. monanthemum*
- 68b. Leaves all short petiolate; sepals all with dark linear laminar glands, entire; ovary ellipsoid 51. *H. subcordatum*
- 67b. Ovary and capsule ± ellipsoid or, if ovoid-ellipsoid to broadly ovoid, then styles 4–5 mm; uppermost leaf pair bracteose.
- 69a. Styles 4–5 mm; capsule broadly ovoid; leaves all sessile, blade oblong to triangular-ovate 47. *H. trigonum*
- 69b. Styles 2–3 mm; capsule ± ellipsoid; some or all leaves petiolate, blade triangular-ovate to elliptic or oblanceolate to obovate.
- 70a. Stem unbranched below apical node or with a few short suberect branches; styles usually longer than ovary; sepals usually without dark laminar glands 48. *H. ludlowii*
- 70b. Stem nearly always with long ± spreading branches from up to 5 nodes; styles usually (?always) ca. as long as ovary or less; sepals usually with dark laminar glands 49. *H. himalaicum*

1. *Hypericum* sect. *Ascyreia* Choisy, Prodr. Monogr. Hypéric. 37. 1821.

金丝桃组 jin si tao zu

Norysca Spach.

Shrubs or subshrubs, glabrous, without dark glands or very rarely with sepals reddish glandular-ciliate (species no. 6). Leaves usually with abaxial glands. Sepals nearly always free, margin entire or denticulate (very rarely glandular). Petals and stamens deciduous after anthesis (rarely tardily); petal apiculus usually present. Stamen fascicles 5, free (or very rarely apparently 4), anthers dorsifixed. Styles (4 or)5, free or partly united. Capsule valves smooth. Seeds often carinate or ± winged.

Forty-seven species: Bulgaria and Pontic Turkey, from Pakistan to China and N Vietnam, and in S India, Sri Lanka, and SE Asia to Flores and Sulawesi; 30 species (20 endemic) in China.

1. *Hypericum augustinii* N. Robson, J. Roy. Hort. Soc. 95: 495. 1970.

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Shrubs, ca. 1 m tall; stems few, erect or arching, without or with few short lateral branches. Stems 4-lined and ancipitous when young, eventually terete; internodes 2.5–7 cm, mostly exceeding leaves. Leaves all sessile or lower (rarely all but uppermost) with flat petiole to 1.5 mm; blade oblong-lanceolate or oblong-ovate to broadly ovate, (3–)3.7–7.5 × (1–)1.5–4.4 cm,

leathery, abaxially paler, both sides glaucous; laminar glands long streaks and dots; abaxial glands dense; main lateral veins 3-paired, without visible tertiary reticulation; base rounded to subcordate, apex acute to rounded-apiculate; upper ones sub-amplexicaul. Inflorescence (1–)3–13-flowered, from 1 or 2 nodes, nearly flat-topped, with short or very short terminal internode; bracts on main stem broadly ovate, usually forming a pseudo-whorl, others reduced, broadly ovate to lanceolate, deciduous. Pedicels 6–12 mm. Flowers 4–6.6 cm in diam., stellate to shallowly cupped; buds broadly ovoid, apex obtuse. Sepals

erect, broadly oblong to broadly elliptic or ovate, equal to subequal, (0.7–)1–1.5 cm × 4–9 mm; laminar glands lines to dots, margin entire or slightly eroded toward apex, apex subapiculate or obtuse to rounded. Petals pale to bright golden yellow, obovate, 2–3.6 × 1.4–2.6 cm, 2.5–3 × as long as sepals; margin entire or very minutely denticulate, eglandular; apiculus rounded or nearly absent. Stamen fascicles each with 60–70 stamens, longest 1–2 cm, ca. 1/2 as long as petals. Ovary broadly ovoid, 5–6 × 4–5 mm; styles 6–8 mm, ca. 1.2 × as long as ovary, free, erect to gradually divergent. Capsule broadly ovoid, 1–1.2 cm × 9–10 mm. Seeds dark reddish brown, ca. 1.5 mm, not or scarcely carinate; testa linear-reticulate. Fl. Sep–Oct, fr. Nov. $2n = ?54$ (48–55)*.

• River banks, mountain slopes, open roadsides; 1200–1700 m. SW Guizhou (Anlong), S Yunnan (Jinghong, Shiping).

Hypericum augustinii is a stout plant with large, leathery leaves; characters that may be related to its degree of polyploidy (?6x).

2. *Hypericum reptans* J. D. Hooker & Thomson ex Dyer in J. D. Hooker, Fl. Brit. India 1: 255. 1874.

匍枝金丝桃 pu zhi jin si tao

Shrublets, prostrate or ascending, to 0.3 m tall, forming clumps or mats to 1 m in diam., sometimes pendent from rocks; stems branching pinnately, rooting. Stems 4-lined and ancipitous when young, eventually 4-lined to subterete; internodes 0.5–1.4 cm, shorter than to exceeding leaves. Leaves with petiole 0.5–1.5 mm; blade elliptic or elliptic-oblong to oblanceolate or more rarely obovate, 0.7–1.6(–2) cm × 2–9 mm, increasing in size and relative width up stem, thickly papery, abaxially paler or ± glaucous; laminar glands medium to short streaks and dots; abaxial glands absent; main lateral veins 1–2(–3)-paired, tertiary reticulation dense, often obscure; base cuneate, apex obtuse to rounded. Inflorescence 1-flowered; flowering branches from middle and upper part of current stem; bracts (uppermost leaf pair) leaflike, persistent. Pedicels 4–8 mm. Flowers 2–3 cm in diam., ± deeply cupped; buds ovoid-ellipsoid, apex rounded. Sepals reflexed in bud, spreading in fruit, oblong to obovate or oblanceolate, unequal, 0.6–1.4 × 2.5–6.5 cm; laminar glands distal, streaks and dots, relatively few, margin entire, apex obtuse or rarely apiculate to rounded. Petals deep golden yellow, sometimes tinged red, broadly obovate, 1.1–1.8 cm × 7–12 mm, 1.3–1.9 × as long as sepals; margin entire, eglandular; apiculus rounded, nearly absent. Stamen fascicles each with 20–30 stamens, longest 4.5–6 mm, 0.25–0.35 × as long as petals. Ovary globose, 3–4 × 3–5 mm; styles (2.5–)3–4(–4.5) mm, ca. as long as ovary, free, erect, ± sharply outcurved near apex. Capsule globose to depressed-globose, 6–10 mm and wide, indehiscent, ± baccate, brick-colored when ripe. Seeds dark reddish brown, 0.6–0.7 mm, narrowly carinate; testa linear-foveolate. Fl. Jul–Aug, fr. Sep–Oct.

Grassy slopes, rocky places, streamsides at forest edges; 2500–3500 m. SE Xizang, NW Yunnan [NE India, N Myanmar, Nepal].

3. *Hypericum griffithii* J. D. Hooker & Thomson ex Dyer in J. D. Hooker, Fl. Brit. India 1: 253. 1874.

藏东南金丝桃 zang dong nan jin si tao

Shrubs 0.9–3 m tall, deciduous, with branches erect. Stems

2-lined and ancipitous when young, soon terete; internodes 2–3.5 cm, shorter than leaves. Leaves sessile; leaf blade ovate-oblong to ovate, (4–)4.5–11.7 × (2.7–)3.7–6 cm, thickly papery, abaxially not or scarcely paler, not glaucous; laminar glands large and small dots, abaxial glands absent; main lateral veins (6 or)7- or 8(or 9)-paired, uniting with midvein branches to form arched intramarginal vein, tertiary reticulation very dense, prominent adaxially at least, conspicuous; base cordate, apex obtuse-apiculate (or rarely acute) to rounded. Inflorescence 5–20-flowered, from apical node, round-topped, sometimes also from second node and on lower short lateral shoots, the whole then pyramidal; bracts caducous, lanceolate, small. Pedicels 0.8–2 cm. Flowers ca. 3.5 cm in diam., stellate; buds conic, apex acute. Sepals erect to outcurved in bud, ± spreading in fruit, ovate to lanceolate or oblong-elliptic, subequal, 2.5–5 × 1.5–2 mm, laminar glands few, streaks to dots, margin entire, apex acute to apiculate. Petals golden-yellow, obovate to oblanceolate, (1.3–)1.5–2 × 0.6–1 cm, 5–6 × as long as sepals; margin entire, eglandular; apiculus lateral, acute. Stamen fascicles each with 20–25 stamens, longest (0.8–)1.2–1.5 cm, 0.7–0.8 × as long as petals. Ovary narrowly ovoid to ovoid-ellipsoid, 4–5 × ca. 2.5 mm; styles erect, apically sometimes slightly spreading, 8–10 mm, 1.4–2 × as long as ovary, free but sometimes coherent in lower half. Capsule narrowly ovoid to ellipsoid, 9–10 × ca. 7 mm. Seeds dark reddish brown, ca. 0.9 mm, narrowly carinate; testa linear-foveolate to ribbed-scalariform. Fl. Mar–Apr, fr. Jun–Aug.

• Scrub in dry valleys; 1100–2000 m. SE Xizang.

4. *Hypericum monogynum* Linnaeus, Sp. Pl., ed. 2, 2: 1107. 1763.

金丝桃 jin si tao

Hypericum chinense Linnaeus, Syst. Nat., ed. 10, 2: 1184. 1759, not Osbeck (1757), nor Retzius (1788); *H. chinense* subsp. *latifolium* Kuntze; *H. chinense* subsp. *obtusifolium* Kuntze; *H. chinense* subsp. *salicifolium* (Siebold & Zuccarini) Kuntze; *H. chinense* var. *salicifolium* (Siebold & Zuccarini) Choisy; *H. monogynum* var. *salicifolium* (Siebold & Zuccarini) André; *H. salicifolium* Siebold & Zuccarini; *Komana salicifolia* (Siebold & Zuccarini) Y. Kimura ex Honda; *Norysca chinensis* (Linnaeus) Spach; *N. chinensis* var. *salicifolia* (Siebold & Zuccarini) Y. Kimura; *N. salicifolia* (Siebold & Zuccarini) K. Koch.

Shrubs, 0.5–1.3 m tall, bushy or usually with branches lax, spreading. Stems 2(–4)-lined and ancipitous when young, soon terete; internodes 1–5 cm, shorter than leaves. Leaves with petiole 1.5–2 mm; blade oblong to elliptic, 2.5–5 × 1.2–2.3 cm, thickly papery, abaxially paler but not glaucous; laminar glands very small dots; abaxial glands absent; main lateral veins 2- or 3-paired, all or upper sometimes uniting with midvein branches to form ± arched intramarginal vein, tertiary reticulation very dense, not very conspicuous; base cuneate to subangustate, apex acute to rounded. Inflorescence 1–15(–30)-flowered, from apical node, lax, shallowly round-topped, sometimes also from uppermost 1–3 nodes, rarely with 1 or 2 pairs of flowering branches; bracts caducous, linear-lanceolate, small. Pedicels 0.8–2.8(–5) cm. Flowers 3–6.5 cm in diam., stellate; buds ovoid, apex subacute to obtuse. Sepals ± spreading, broadly to

narrowly elliptic or oblanceolate, equal to unequal, 4.5–13 × 1.5–6 mm; laminar glands basally lines to streaks, dots toward apex, margin entire, apex acute to rounded. Petals golden yellow to lemon yellow, triangular-obovate, 2–3.4 × 1–2 cm, 2.5–4.5 × as long as sepals; margin entire, eglandular; apiculus lateral, acute to rounded or obsolete. Stamen fascicles each with 25–35 stamens, longest 1.8–3.2 cm, ca. as long as petals. Ovary ovoid or ovoid-conic to subglobose, 2.5–5 × 2.5–3 mm; styles 1.2–2 cm, 3.5–5 × as long as ovary, united nearly to apices then outcurved or very rarely to half free. Capsule broadly ovoid or rarely ovoid-conic to subglobose, 6–10 × 4–7 mm. Seeds dark reddish brown, ca. 2 mm, narrowly carinate; testa linear-reticulate. Fl. May–Aug, fr. Aug–Sep. $2n = 42^*$.

• Mountain slopes, roadsides, thickets in dry habitats; sea level to 200 m in lowland provinces, but up to 1500 m in Sichuan. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Sichuan, Taiwan, Zhejiang [Japan (naturalized)]; widely cultivated in S Africa, E and S Asia, Australia, Central America, N and W Europe, Mauritius, and the West Indies].

Hypericum monogynum is very variable, but there are no gaps in the variation that would allow infraspecific classification. Four main forms can be recognized:

(i) Leaves elliptic to oblanceolate, base cuneate, apex acute; inflorescence very lax; sepals narrowly elliptic, apex acute ("*salicifolium*"). W Hubei, Shaanxi, Sichuan.

(ii) Leaves narrowly oblong to lanceolate, base usually rounded, apex obtuse to rounded; inflorescence less lax; sepals narrowly oblong, obtuse ("*obtusifolium*"). E Hubei and Jiangxi southward and eastward to the coast; Taiwan, where the leaves are oblanceolate.

(iii) Leaves broadly oblong to broadly elliptic or lanceolate, base cuneate to cordate, apex acute to rounded; sepals broadly elliptic to broadly oblong or leaflike ("*latisepalum*"). W Hubei, Sichuan; also Guizhou and Shandong (probably introduced).

(iv) Leaves broadly elliptic-oblong to triangular-ovate or ovate, base broadly cuneate to rounded, apex obtuse to rounded; sepals narrowly elliptic, apex acute ("*ovatum*"). Sichuan.

5. *Hypericum cohaerens* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 235. 1985.

连柱金丝桃 *lian zhu jin si tao*

Shrubs, height unrecorded; branches spreading. Stems 4-lined and ancipitous when young, soon terete; internodes 1.5–2.3 cm, shorter than leaves. Leaves with petiole 1.5–2 mm; blade oblong to elliptic, 2.5–5 × 1.2–2.3 cm, thickly papery, abaxially paler but not glaucous; laminar glands very small, dots; abaxial glands absent; main lateral veins 2- or 3-paired, all or the upper sometimes uniting with midvein branches to form ± crenate intramarginal vein, tertiary reticulation very dense, not very conspicuous; base cuneate to subangustate, apex acute to rounded. Inflorescence 1–7-flowered, from apical node, lax, shallowly round-topped; bracts caducous, linear. Pedicels 8–11 mm. Flowers 3.5–5 cm in diam., stellate; buds ovoid, apex subacuminate. Sepals spreading, narrowly lanceolate to linear, equal, 0.9–1.2 cm × 1.5–3 mm; laminar glands lines, margin entire, apex acute. Petals golden yellow, oblanceolate, 1.6–2.5 × 0.8–1.3 mm, ca. 2 × as long as sepals; margin entire, eglandular; apiculus acute. Stamen fascicles each with ca. 30 sta-

mens, longest 1.6–2 cm or more, 0.8–0.95 × as long as petals. Ovary ovoid to subglobose, 4–5 × 3–4 mm; styles 1–1.2 cm, 2.2–2.5 × as long as ovary, at first up to half coherent but becoming free, straight. Capsule and seeds unknown. Fl. May–Jul.

• Thickets on rocky slopes; 1400–2000 m. NE Guizhou (Fanjiang Shan), NE Yunnan (Daguan).

The styles in this species are almost certainly secondarily free; its nearest relatives would seem to be *Hypericum monogynum* forms (iii) and (iv).

6. *Hypericum prattii* Hemsley, J. Linn. Soc., Bot. 29: 303. 1892.

大叶金丝桃 *da ye jin si tao*

Shrubs, 0.75–1 m tall; branches spreading. Stems 4-lined and ancipitous when young, soon terete; internodes 1–5.5 cm, shorter than leaves. Leaves sessile; blade broadly ovate to elliptic-ovate, 4–11(–14.5) × 2–5.1(–7) cm, thickly papery, abaxially rather paler but not glaucous; laminar glands dots, very small; abaxial glands absent; main lateral veins 4- or 5-paired, tertiary reticulation dense, conspicuous especially abaxially; base cordate-amplexicaul or (uppermost) rounded, apex acute to short acuminate. Inflorescence 3–10(–24)-flowered, from apical node, lax, flat-topped; bracts caducous, linear, small. Pedicels 3–10(–25) mm (to 6.6 cm in fruit). Flowers 3.5–5.5 cm in diam., stellate; buds ovoid, apex obtuse to rounded. Sepals erect in bud (?and in fruit), lanceolate to broadly ovate-cordate (leaflike), subequal to unequal, 0.9–1.7(–1.9) cm × 3–9(–11) mm; laminar glands basally lines, distally dots, margin entire, apex rounded. Petals golden yellow, obovate to oblanceolate, 2–2.6 × 0.9–1.8 cm, 1.5–2.3 × as long as sepals; margin entire, eglandular; apiculus rounded or obsolete. Stamen fascicles each with 30–40 stamens, longest 1.8–2.4 cm, nearly as long as petals. Ovary ovoid, 4–6 × 2.5–4.5 mm; styles 1.1–1.9 cm, 3–3.5 × as long as ovary, united nearly to apices then spreading. Capsule and seeds not seen. Fl. Jun–Jul.

• Mountain slopes; (300–)800–3000 m or ?higher. Hubei, Sichuan.

7. *Hypericum elatoides* R. Keller, Bot. Jahrb. Syst. 33: 549. 1904.

岐山金丝桃 *qi shan jin si tao*

Hypericum ascyron Linnaeus var. *punctatostriatum* R. Keller; *H. monogynum* Linnaeus var. *franchetii* Baroni.

Suffrutex, 35–82 cm tall; stems solitary or few, usually slender, erect from ascending or creeping, branching and rooting base, unbranched below inflorescence. Stems shallowly 4-lined below nodes, sometimes 2-lined below or becoming nearly terete; internodes (3–)4.5–10.5 cm, shorter than leaves. Leaves sessile or with petiole to 1.5 mm; blade oblong or oblong-triangular to broadly ovate, 4.4–11 × 1.8–5 cm, thinly papery, abaxially rather paler, not glaucous; laminar glands, very small, streaks to dots; abaxial glands absent; main lateral veins 4- or 5-paired, main midvein branches nearly equally strong, tertiary reticulation dense and abaxially prominent; base cordate-amplexicaul to truncate, apex obtuse to short apiculate

or rounded. Inflorescence (1–)5–13-flowered, from 1 or 2 nodes, rarely with flowering branches from one node below, the whole lax, flat-topped; bracts and bracteoles linear-lanceolate to linear-elliptic, persistent. Pedicels (0.3–)1–5 cm. Flowers 4–8 cm in diam., stellate, with petals becoming reflexed, tardily deciduous; buds narrowly ovoid, apex ± acute. Sepals free or to 1/4 united, erect to suberect, ovate to triangular-ovate, equal, 3–5(–7) × 1.5–3(–5) mm, laminar glands lines with the outer interrupted, marginal glands reddish or absent, margin entire or occasionally minutely irregularly reddish glandular-ciliate, apex obtuse to acute. Petals bright yellow, 2.5–4 cm × 7–10(–15) mm, 6–8 × as long as sepals, oblanceolate; margin entire, eglandular; apiculus absent. Stamen fascicles each with 45–60 stamens, longest 1.5–2.5 cm, 0.5–0.65(–0.8) × as long as petals. Ovary ± broadly ovoid, 4–6(–7) × 3.5–4.5 mm; styles 1.3–1.9 cm, 2.3–4.5 × as long as ovary, united nearly to apices then outcurved. Capsule broadly to narrowly ovoid or ovoid-conic, 0.9–1.6 cm × 6–11 mm. Seeds dark reddish brown, 1.1–1.5 mm, very shallowly carinate; testa densely reticulate. Fl. May–Jul, fr. Jul–Aug.

- Damp places in open woodlands and open grasslands; 800–1000 m. Gansu, Henan, Shaanxi, Shanxi.

Hypericum elatoides is most closely related to *H. monogynum*, in particular to an ovate- to oblong-leaved form from Jiangsu belonging to form (iii). It is rather similar to *H. prattii* (from Sichuan), but differs from it by the apically obtuse to rounded (not acute to apiculate), relatively narrower leaves and the small, triangular-ovate, often minutely reddish-glandular-ciliate sepals. In *H. prattii*, the sepals are large and ovate-lanceolate to elliptic with an entire margin.

The tardily deciduous petals and stamens, suffruticose habit, and sometimes gland-margined sepals make this species anomalous in *Hypericum* sect. *Ascyreia*, but it is better placed there than in a separate section. With these characters, in fact, it forms a link between *H.* sect. *Ascyreia* and the Caucasian *H.* sect. *Bupleuroides* Stefanoff.

8. *Hypericum longistylum* Oliver, Hooker's Icon. Pl. 16: t. 1534. 1886.

长柱金丝桃 chang zhu jin si tao

Shrubs, ca. 1 m tall, with divaricate long branches bearing short pinnately arranged ones. Stems 2–4-lined and ancipitous when young, eventually terete; internodes 1–3 cm, shorter than to exceeding leaves. Leaves subsessile or with petiole to 1 mm; blade narrowly oblong to elliptic or subcircular, 1–3.1 × 0.6–1.6 cm, thickly papery, abaxially ± densely glaucous; laminar glands small to very small dots; abaxial glands absent; main lateral veins faint, ca. 3-paired, without or with very faintly visible tertiary reticulation; base cuneate to short angustate, apex subapiculate to rounded. Inflorescence 1-flowered, terminal and on short lateral branches; bracts leaflike, persistent. Pedicels 0.8–1.2 cm. Flowers 2.5–4.5(–5) cm in diam., stellate; buds narrowly ellipsoid, apex acute. Sepals free or united at base, spreading or recurved, linear or rarely elliptic, equal to subequal, 3–6(–10) × 0.5–2 mm; laminar glands ca. 4, basally lines, distally dots, margin entire, apex acute. Petals golden yellow to ?orange, oblanceolate, (1.1–)1.5–2.2(–2.4) cm × 4–8(–10) mm, 2.5–3.5 × as long as sepals; margin entire, eglandular; apiculus absent or nearly so. Stamen fascicles each with 15–25 stamens, longest 1.5–2.5 cm, 1–1.2 × as long as petals.

Ovary ellipsoid to globose, 3–4 × 2–3 mm, sometimes substipitate; styles 1–1.8 cm, 3.5–6 × as long as ovary, united nearly to apices then spreading. Capsule ovoid, (4–)6–12 × 4–5 mm, sometimes substipitate. Seeds not seen. Fl. May–Jul, fr. Aug–Sep.

- Open sunny places, cliffs, dry banks and slopes, streamsides; 200–2100 m. Anhui, Gansu, Henan, Hubei, Hunan, Shaanxi.

The fruit of *Hypericum longistylum* is used medicinally. Two subspecies have been recognized.

- 1a. Ovary and capsule ellipsoid, usually stipitate 8a. subsp. *longistylum*
- 1b. Ovary and capsule globose, sessile 8b. subsp. *giraldii*

8a. *Hypericum longistylum* subsp. *longistylum*

长柱金丝桃(原亚种) chang zhu jin si tao (yuan ya zhong)

Hypericum longistylum var. *silvestrii* Pampanini; *Norysca longistyla* (Oliver) Y. Kimura.

Sepals 3–6 mm. Ovary and capsule ellipsoid, usually stipitate.

- Open sunny places, streamsides; 200–1200 m. Anhui, Henan, Hubei, Hunan.

8b. *Hypericum longistylum* subsp. *giraldii* (R. Keller) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 239. 1985.

圆果金丝桃 yuan guo jin si tao

Hypericum giraldii R. Keller, Bot. Jahrb. Syst. 33: 548. 1904; *H. longistylum* var. *giraldii* (R. Keller) Pampanini.

Sepals 5–7 mm. Ovary and capsule globose, sessile.

- Dry slopes; 1900–2100 m. Gansu, Hubei, Shaanxi.

9. *Hypericum fosteri* N. Robson, Acta Phytotax. Sin. 43: 271. 2005.

楚雄金丝桃 chu xiong jin si tao

Shrubs to ca. 1.5 m tall; branches erect to spreading. Stems 4-lined when young, soon terete; internodes 2–4 cm, shorter than leaves. Leaves with petiole 1–2 mm; blade narrowly ovate to lanceolate, 3.5–5 × 1.3–2.2 cm, abaxially paler; laminar glands short streaks to dots; abaxial glands dense; main lateral veins 4(or 5)-paired, without visible tertiary reticulation; base rounded, apex obtuse to rounded. Inflorescence 1- or 2-flowered, from apical node; bracts deciduous, linear. Pedicels 5–7 mm. Flowers 4–4.5 cm in diam., ± deeply cupped; buds not recorded. Sepals spreading, recurved in fruit, oblong to elliptic-oblong, subequal, 10–11 × 4.5–5 mm; laminar glands lines becoming streaks near apex, not becoming impressed (sepals not apparently ribbed) margin entire, apex broadly obtuse or apiculate-obtuse. Petals golden-yellow, broadly obovate, 2–2.5 × 1.5–2 cm, 2–2.5 × as long as sepals; margin entire, eglandular; apiculus rounded. Stamen fascicles each with ca. 75 stamens, longest ca. 8 mm, 0.35–0.4 × as long as petals. Ovary narrowly ovoid, ca. 8 × 5 mm; styles spreading-outcurved, 4–5 mm, 0.5–0.65 × as long as ovary, free. Capsule narrowly ovoid-cylindric, 1.8–2.3 × 1–1.2 cm. Seeds reddish brown, 0.8–1 mm, scarcely carinate; testa linear-reticulate. Fl. May–?Jul, fr. Aug.

• Evergreen forest understories; ca. 2400 m. C Yunnan (Chuxiong).

Hypericum fosteri is related to the widespread *H. hookerianum* and the N Thailand endemic *H. siamense* N. Robson. It differs from the former in the oblong to oblanceolate-spatulate, spreading-outcurved sepals, which are not ribbed, and in the elongate (not ovoid) capsule.

10. *Hypericum wardianum* N. Robson, Acta Phytotax. Sin. 43: 273. 2005.

漾濞金丝桃 yang bi jin si tao

Shrubs to ca. 1.5 m tall; branches erect to spreading. Stems 2–4-lined when young, soon terete; internodes 2–5 cm, shorter than leaves. Leaves with petiole 1.5–2.5 mm; blade lanceolate, 3.5–7 × (1–)1.4–2.2 cm, abaxially paler; laminar glands long streaks to dots; abaxial glands absent; main lateral veins 3-paired, without or with lax reticulate venation; base broadly to narrowly cuneate, apex rounded to apiculate-obtuse. Inflorescence 1–4-flowered, from apical node; bracts deciduous, linear. Pedicels 5–10 mm. Flowers 3–3.5 cm in diam., ± deeply cupped; buds subglobose, apex broadly obtuse to rounded. Sepals erect in bud, erect to subspreading in fruit, oblong to elliptic or oblanceolate-spatulate, subequal, 6–9 × 2–4 mm; laminar glands lines to distally dots, not becoming impressed (sepals not apparently ribbed) margin entire or finely eroded-denticulate, apex apiculate-obtuse to rounded. Petals golden-yellow, broadly obovate, 1.5–2 × 1–1.5 cm, 2–2.5 × as long as sepals; margin entire, eglandular; apiculus rounded. Stamen fascicles each with ca. 70 stamens, longest 8–9 mm, ca. 0.5 × as long as petals. Ovary narrowly ellipsoid, ca. 7 × 4 mm; styles spreading-outcurved, 4–5 mm, ca. 0.8 × as long as ovary, free. Capsule narrowly cylindrical-ellipsoid to ± broadly ellipsoid, (12–)15–16 × 7–10 mm. Seeds reddish brown, 0.7–0.9 mm, not or scarcely carinate; testa linear-reticulate. Fl. May–?Jul, fr. Aug–Oct.

Clearings and understories of broad-leaved evergreen forests; 2600–3000 m. W Yunnan (Yangbi) [NE Myanmar].

Hypericum wardianum is closely related to *H. fosteri*, but differs in the narrower, cuneate-based leaves without abaxial glands but with more elongate, laminar, glandular streaks, and in the smaller flowers with sepals erect in bud and spreading rather than reflexed in fruit and sometimes with the margin eroded-denticulate. Both species differ from *H. hookerianum* in having unribbed sepals and elongate capsules, although the elongation is less marked in the type specimen (from NE Myanmar) than in plants grown from its seeds.

11. *Hypericum hookerianum* Wight & Arnott, Prodr. Fl. Ind. Orient. 1: 99. 1834.

短柱金丝桃 duan zhu jin si tao

Hypericum patulum Thunberg var. *hookerianum* (Wight & Arnott) Kuntze; *Norysca hookeriana* (Wight & Arnott) Wight.

Shrubs, to 1.75 m tall, bushy, round-topped; branches erect to spreading. Stems 4-lined and ancipitous when young or always terete; internodes 1.2–6 cm, shorter than to exceeding leaves. Leaves with petiole 1–4 mm; blade narrowly lanceolate to oblong-lanceolate or broadly ovate, (1.7–)2.5–7.8 × (0.7–)1–3.2 cm, abaxially paler or ± glaucous; laminar glands short streaks to dots; abaxial glands dense to sparse or absent; main

lateral veins (2 or)3- or 4-paired, without visible tertiary reticulation; base narrowly cuneate to subcordate, apex acute to rounded. Inflorescence 1–5-flowered, from apical node, nearly round-topped; bracts deciduous, lanceolate or narrowly oblong to obovate-spatulate. Pedicels 3–16 mm. Flowers 3–6 cm in diam., ± deeply cupped; buds broadly ovoid to subglobose, apex broadly obtuse to rounded. Sepals spreading-incurved, obovate or obovate-spatulate to subcircular or elliptic or oblong-elliptic, subequal, 5–10 × 4–8 mm; laminar glands lines, sometimes interrupted near apex, often becoming impressed (sepals apparently ribbed) margin entire or rarely very finely eroded-denticulate, apex rounded or rarely rounded-apiculate to obtuse. Petals deep golden to pale yellow, broadly obovate to subcircular, 1.5–3 × 1.5–2.5 cm, ca. 3 × as long as sepals; margin entire, eglandular; apiculus obtuse to rounded or absent. Stamen fascicles each with 60–80 stamens, longest 5–9 mm, 0.25–0.35 × as long as petals. Ovary broadly ovoid, 5–7(–8) × 4–5(–6) mm; styles 2–4(–7) mm, 0.35–0.7(–0.9) × as long as ovary, free, gradually outcurved toward apex. Capsule ovoid to ovoid-conic, 0.9–1.7 cm × 7–12 mm. Seeds dark reddish brown, 0.7–1 mm, not or scarcely carinate; testa linear-reticulate. Fl. Apr–Jul, fr. Sep–Oct. $2n = ?20$.

Thickets on slopes, forest margins; 1900–3400 m. S and SE Xizang (Yadong, Zayü) [Bangladesh, Bhutan, NE and S India, Myanmar, Nepal, N Thailand, N Vietnam].

Hypericum hookerianum is a widespread and variable species. The Xizang population, like those from adjacent (Himalayan) regions, has ovate leaves and rounded sepals. Plants in both areas, however, have the broad sepals with prominent, linear glands characteristic of the species.

12. *Hypericum subsessile* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 239. 1985.

近无柄金丝桃 jin wu bing jin si tao

Shrubs, 1–1.5 m tall; branches erect to arching. Stems 4-angled and ancipitous when young, eventually terete; internodes 1–3 cm, shorter than leaves. Leaves subsessile; blade narrowly elliptic, 3.5–6.5 × 0.7–2(–2.7) cm, subleathery, abaxially paler to glaucous; laminar glands small dots and short streaks; abaxial glands dense to sparse; main lateral veins 3- or 4-paired, tertiary reticulation rather lax, often conspicuous; base cuneate, apex acute to rounded-apiculate. Inflorescence 1–8-flowered, from 1(or 2) nodes, rounded to flat-topped; bracts deciduous, small, lanceolate to large, leaflike. Pedicels 0.8–2 cm. Flowers 3.5–4.5 cm in diam., shallowly cupped to stellate; buds ovoid, apex acute. Sepals outcurved in bud, reflexed in fruit, narrowly elliptic to ovate or leaflike, unequal, 1–2 cm × 4–10 mm; laminar glands basally lines, toward apex dots, margin entire, apex acute or acuminate. Petals bright yellow, sometimes tinged red, oblanceolate-obovate, 1.7–2 × 0.9–1.1 cm, 1–2 × as long as sepals; margin entire, eglandular; apiculus acute. Stamen fascicles each with 40–60 stamens, longest 1.2–1.5 cm, ca. 0.7 × as long as petals. Ovary ovoid-conic, 6–8 × 4–6 mm; styles 5–6 mm, 0.8–0.9 × as long as ovary, free, suberect, outcurved near apex. Capsule narrowly ovoid-conic, (1.6–)1.8–2.1 × (0.7–)1–1.2 cm, turning purplish red when maturing. Seeds dark reddish brown, 1.1–1.5 mm, with terminal and lateral wing; testa linear-foveolate. Fl. Jul–Oct, fr. Aug–Oct.

• Thickets and open areas in mixed forest on mountain slopes; 2400–3000 m. C Sichuan (Hanyuan), W Yunnan (Dali).

Hypericum subsessile is a relict species that occurs in two widely separate localities. Its nearest ancestral relative is in N Thailand (*H. siamense* N. Robson).

13. *Hypericum acmosepalum* N. Robson, J. Roy. Hort. Soc. 95: 490. 1970.

尖萼金丝桃 jian e jin si tao

Shrubs, 0.6–2 m tall; branches erect to ascending. Stems 4-angled and ancipitous when young, eventually terete; internodes 1–5 cm, shorter than to exceeding leaves. Leaves with broad petiole 0.5–1(–1.5) mm; blade oblong or elliptic-oblong to narrowly elliptic, sometimes oblanceolate toward stem base, 1.8–4.2(–6) × 0.6–1.5(–2) cm, thickly papery to subleathery, abaxially ± densely glaucous; laminar glands small dots and sometimes short streaks; abaxial glands rather dense to sparse; main lateral veins 1- or 2-paired, the upper forming distinct often ± straight intramarginal vein, tertiary reticulation very obscure or not visible; base cuneate, apex obtuse or more rarely subacute to rounded-apiculate or rounded. Inflorescence 1–3(–6)-flowered, from apical node, nearly flat-topped; bracts lanceolate to leaflike, persistent. Pedicels 0.7–1.7 cm. Flowers 3–5 cm in diam., stellate; buds ovoid, apex acute to subapiculate. Sepals ± outcurved, ovate to narrowly lanceolate, subequal, (5–)6–9(–11) × 3–4(–6) mm; laminar glands lines, sometimes interrupted, margin subentire or minutely and ± irregularly denticulate (especially toward apex), apex acute to subacuminate. Petals deep yellow, sometimes tinged red, obovate, 1.6–2.5 × 1–1.5 cm, 2.5–3 × as long as sepals; margin entire or often minutely glandular-denticulate, especially around apiculus; apiculus subacute to obtuse. Stamen fascicles each with 40–65 stamens, longest (1–)1.5–1.8 cm, 0.75–0.85 × as long as petals. Ovary narrowly ovoid-conic, 5–7 × 3.5–4.5 mm; styles (3–)4–6(–8) mm, ca. as long as ovary or slightly longer, free, suberect, outcurved near apex. Capsule ovoid to narrowly ovoid-conic, 0.9–1.5 cm × 8–10 mm, turning bright red when maturing in open habitats. Seeds dark orange- to reddish brown, 1–1.1 mm, narrowly carinate with terminal expansion; testa linear-foveolate. Fl. May–Jul, fr. Aug–Sep.

• Forest glades, roadside banks, scrubby hillsides, open stream-sides; 900–2700 m. NW and W Guangxi, NE and SW Guizhou, SW Sichuan, Yunnan.

Its usually oblong or elliptic, apically ± rounded leaves, glaucous abaxially and with a conspicuous intramarginal vein, enable *Hypericum acmosepalum* to be recognized even when sterile.

14. *Hypericum maclarenii* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 270. 1985.

康定金丝桃 kang ding jin si tao

Shrubs, 0.75–1 m tall; branches erect to arching. Stems shallowly 4-lined and sometimes ancipitous when young, soon 2-lined to terete; internodes 1–2.5(–5.5) cm, usually shorter than leaves. Leaves with petiole 0.5–2 mm; blade narrowly triangular-lanceolate, 2.5–5.8 × 0.7–2.3 cm, thickly papery, abaxially ± densely glaucous; laminar glands long (in lower leaves) to short streaks; abaxial glands rather sparse; main

lateral veins 2- or 3-paired, all branches clearly visible and forming undulating intramarginal vein, tertiary reticulation nearly invisible; base cuneate, apex acute to subacute. Inflorescence 1–4-flowered, from apical node, nearly flat-topped; bracts reduced, linear-lanceolate, persistent. Pedicels 7–10(–25) mm. Flowers 4–5 cm in diam., stellate; buds narrowly ovoid, apex subapiculate. Sepals ± outcurved in bud, spreading in fruit, narrowly elliptic, subequal to unequal, 7–11(–20) × 2.5–5(–8) mm; laminar glands lines, sometimes interrupted, margin entire, apex acute to acuminate. Petals golden yellow, sometimes tinged red, obovate-oblanceolate, 2–2.5 × 1.2–1.5 cm, (1.5–)2.5–3 × as long as sepals; margin entire, eglandular; apiculus acute to obtuse. Stamen fascicles each with ca. 50 stamens, longest 1.2–1.5 cm, ca. 3/5 as long as petals. Ovary ovoid-conic, 7–8 × 3.5–5 mm; styles 6–8 mm, 0.85–1 × as long as ovary, free, outcurved near apex. Capsule narrowly ovoid, 1.2–1.5 cm × 7–10 mm. Seeds dark brown, 1–1.5 mm, carinate; testa linear-reticulate to linear-foveolate. Fl. May–Jul, fr. Sep.

• Steep rocky banks; 1800–2900 m. W Sichuan.

Hypericum maclarenii is a local species that may be recognized by: (1) the narrow, apically acute leaves with looped venation clearly visible abaxially against a whitish background and (2) the narrow, apically acute, outcurving sepals.

15. *Hypericum choisyianum* Wallich ex N. Robson in Nasir & Ali, Fl. W. Pakistan 32: 6. 1973 [“*choisianum*”].

多蕊金丝桃 duo rui jin si tao

Shrubs, (0.3–)1–2 m tall, bushy; branches erect to arching. Stems 4-lined and ancipitous when young, eventually terete; internodes 1.5–5.5 cm, usually shorter than leaves. Leaves with petiole 2–4 mm; blade triangular-lanceolate or rarely triangular-ovate to ovate, 2.5–8.8 × 1–4.2 cm, thickly papery, abaxially paler but not glaucous; laminar glands streaks and dots; abaxial glands absent; main lateral veins 3–5-paired, lower pairs sometimes free, tertiary reticulation marked and rather dense to nearly invisible; base broadly cuneate to rounded or subcordate, apex acute or acuminate to obtuse or rarely rounded. Inflorescence 1–7-flowered, from apical node, nearly flat-topped; bracts narrowly elliptic to leaflike, persistent. Pedicels 3.5–11 mm. Flowers 4–7 cm in diam., shallowly to deeply cupped; buds ovoid, apex sharply acute to obtuse. Sepals spreading to recurved, unequal, narrowly to very broadly elliptic, 7–8 (or longer if markedly leaflike) × 2–10 mm; laminar glands lines, interrupted toward apex, margin entire, apex acute to apiculate or rarely obtuse. Petals deep golden yellow, sometimes tinged red, broadly obovate to obovate-circular, 1.6–3 × 1.5–2.2 cm, 1.7–2.2 × as long as sepals; margin entire, eglandular; apiculus rounded. Stamen fascicles each with 60–80 stamens, longest 6–10 mm, 0.35–0.4 × as long as petals. Ovary ± broadly ovoid, (5–)6–8(–9) × 3.5–5.5 mm; styles 3–5 mm, 0.35–0.7 × as long as ovary, free, outcurved near apex. Capsule ovoid-conic to subglobose, (0.9–)1.4–1.9 × 0.8–1.2 cm. Seeds dark brown, 0.7–1 mm, carinate or shallowly winged; testa linear-reticulate to linear-foveolate. Fl. Apr–Oct, fr. Aug–Oct.

Grassy or rocky slopes, cliffs, thickets, *Rhododendron* forests; 1600–2800 m (Yunnan), 3100–4800 m (Xizang). C and NW Yunnan (Gongshan, Jingdong), S Xizang [Bhutan, NE India (W Bengal, Sikkim), Myanmar, Nepal, Pakistan].

The populations of Yunnan and Myanmar are isolated from those of the main Himalayan range by a considerable distance. In the easternmost locality (Fengguan Shan), the leaves are nearly elliptic with a rounded apex.

16. *Hypericum lancasteri* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 279. 1985.

展萼金丝桃 zhan e jin si tao

Shrubs, 0.3–1 m tall, branches suberect to spreading, young shoots purplish red. Stems 4-lined but scarcely ancipitous when young, soon 2-lined, eventually terete; internodes 1–4 cm, shorter than to exceeding leaves. Leaves with petiole 1–1.5 mm; blade oblong-lanceolate to lanceolate or rarely ovate, 3–6 × 0.9–3 cm, thickly papery, abaxially paler or sometimes ± densely glaucous; laminar glands dots and short streaks; abaxial glands usually sparse or absent, sometimes dense; main lateral veins 3- or 4-paired, without visible tertiary reticulation; base cuneate to rounded, apex acute to rounded or retuse. Inflorescence 1–11-flowered, from apical node or (in cultivation) sometimes 2 or 3 nodes, lax; branches relatively stout; bracts deciduous, leaflike, gradually reduced in successive nodes. Pedicels (0.8–)1.3–2.5(–3) cm. Flowers 3–5.5(–6.5) cm in diam., nearly stellate to shallowly cupped; buds narrowly to broadly ovoid, apex acute to apiculate. Sepals widely spreading to recurved, equal to subequal, narrowly oblong or narrowly oblong-lanceolate or rarely broader and leaflike, 8–11 × 3–4 mm; laminar glands lines or streaks, margin reddish and entire, apex acute to acuminate. Petals golden yellow, oblong-obovate, 1.7–2.8 × 1.3–1.8 cm, 2.5–3 × as long as sepals; margin entire, eglandular; apiculus acute to obtuse. Stamen fascicles each with 45–50 stamens, longest 1.1–1.6 cm, 0.6(–0.75) × as long as petals. Ovary ovoid, 5–6.5 × 3.5–5 mm; styles 5–7(–9) mm, ca. as long as to 1.25 × as long as ovary, free, outcurving distally, otherwise straight. Capsule ovoid, 1.3–1.7 cm × 8–10 mm. Seeds dark red-brown, 1–1.3 mm, incompletely or not carinate; testa laxly reticulate. Fl. May–Jul, fr. Aug–Oct.

• Dry banks, grassy slopes; 1700–2600 m. C Guizhou (Anshun), SW Sichuan (Huidong, Jinyang), NC and W Yunnan (Dali, Dongchuan, Kunming, Tengchong).

17. *Hypericum stellatum* N. Robson, J. Roy. Hort. Soc. 95: 493. 1970.

星萼金丝桃 xing e jin si tao

Shrubs, 1–2.5 m tall, branches spreading to subpendulous, young shoots purplish red. Stems 4-lined and ancipitous when young, soon 2-lined, sometimes becoming terete; internodes 1–3.1 cm, shorter than leaves. Leaves with petiole 1–2 mm; blade oblong-lanceolate or lanceolate to narrowly ovate, 2–5.5 × 1–2.2 cm, thickly papery, abaxially paler or sometimes ± densely glaucous; laminar glands dots and short streaks; abaxial glands dense; main lateral veins 3- or 4-paired, without visible tertiary reticulation; base cuneate to rounded, apex acute to obtuse or rounded-apiculate. Inflorescence 1–14-flowered, from apical node, lax; branches slender; bracts deciduous, narrowly lanceolate. Pedicels 1–1.5 cm. Flowers 2.5–4 cm in diam., stellate to shallowly cupped; buds ± broadly ovoid, apex apiculate to shortly acuminate. Sepals widely spreading to subrecurved, equal, ± narrowly lanceolate, 0.8–1.3 cm × 2–5 mm; laminar

glands lines, margin entire or apically minutely denticulate with reddish margin, apex acute. Petals golden yellow, sometimes tinged red, obovate, 1.2–2 × 0.8–1.4 cm, ca. 1.5 × as long as sepals; margin entire or distally minutely denticulate, eglandular; apiculus acute. Stamen fascicles each with 30–55 stamens, longest 1–1.3 cm, ca. 0.6 × as long as petals. Ovary ovoid-conic to ovoid, 4–6 × 3–4 mm; styles 6–9.5 mm, 1.2–1.5 × as long as ovary, free, usually flexuous and ± twisted. Capsule ovoid, 1–1.5 cm × 6–8 mm. Seeds dark red-brown, ca. 1.1 mm, not carinate; testa laxly reticulate. Fl. May–Jul, fr. Aug–Sep.

• On slopes, thickets; 800–1400 m. Chongqing (Chengkou).

Hypericum stellatum is closely related to *H. lancasteri* but can be recognized by the more spreading habit, the more slender inflorescence, and the relatively longer, flexuous styles.

18. *Hypericum curvisepalum* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 281. 1985.

弯萼金丝桃 wan e jin si tao

Shrubs, 0.3–1.2 m tall, branches arching to pendulous, young shoots purplish red. Stems 4-lined when young, soon terete; internodes 1–2.5 cm, shorter than leaves. Leaves with petiole 0.5–1 mm; blade triangular-lanceolate to triangular-ovate, 2–4 × 0.8–2 cm, thickly papery, abaxially ± glaucous; laminar glands streaks (occasionally elongate) and dots; abaxial glands dense; main lateral veins 3- or 4-paired, tertiary reticulation obscure or invisible; base rounded to shallowly cordate, apex acute or more rarely obtuse to rounded. Inflorescence 1(–3)-flowered from apical node; bracts linear or usually leaflike. Pedicels 6–10 mm. Flowers 2–4 cm in diam., deeply cupped; buds ovoid, apex acute to apiculate. Sepals outcurved or spreading, unequal, lanceolate or narrowly elliptic to ovate, 0.8–1.4 cm × 3–5 mm; laminar glands lines interrupted distally, margin entire and purplish in bud and fruit, apex subacute to acuminate or rarely apiculate-obtuse. Petals deep yellow, broadly obovate to subcircular, 1.2–2.2 × 0.8–1.7 cm, 1.1–1.5(–2) × as long as sepals; margin entire, eglandular; apiculus obtuse to rounded. Stamen fascicles each with ca. 60 stamens, longest 1–1.2 cm, 0.35–0.7 × as long as petals. Ovary ± broadly ovoid, 6–8 × 4.5–6 mm; styles 3–4 mm, ca. 0.5 × as long as ovary, free, outcurved near apex. Capsule ovoid-conic to broadly ovoid, (1.2–)1.4–1.7 cm × 8–10 mm. Seeds dark reddish brown, 0.8–1 mm, not or scarcely carinate; testa linear-foveolate. Fl. May–Jun, fr. Jul–Sep.

• Dry or rocky hillsides and open woodlands; 1800–3000 m. SW Guizhou (Pu'an), S Sichuan, C, N, and W Yunnan.

The distribution of *Hypericum curvisepalum* largely coincides with that of *H. lancasteri*, from which it has probably been derived. Indeed, these species may even occur in the same area and appear to have similar habitat requirements. The characters that distinguish them, however, are maintained in cultivation, so that their specific status would not appear to be in doubt.

19. *Hypericum henryi* H. Léveillé & Vaniot, Bull. Soc. Bot. France 54: 591. 1908.

西南金丝桃 xi nan jin si tao

Shrubs, 0.5–3 m tall, bushy; branches erect to arching, not

or weakly frondose. Stems 4-lined and ancipitous when young, usually eventually 2-lined or terete; internodes 1–2 cm, usually shorter than leaves. Leaves subsessile or with petiole to ca. 1 mm; blade narrowly elliptic or elliptic-oblong to lanceolate or ovate, 1–4 × 0.4–1.6 cm, thickly papery, abaxially densely glaucous; laminar glands streaks and dots; abaxial glands dense to sparse; main lateral veins 2- or 3(or 4)-paired, tertiary reticulation scarcely or not visible; base angustate or cuneate to rounded, apex acute to obtuse or more rarely rounded. Inflorescence 1–5(–7)-flowered, from 1 or 2 nodes, nearly flat-topped, usually with short terminal internode, sometimes with 1(or 2) flowering branches from middle region of stem; bracts deciduous, narrowly oblong to lanceolate. Pedicels 4–7 mm. Flowers 1.5–5.2 cm in diam., shallowly to deeply cupped; buds broadly ovoid to globose, apex subacute to rounded. Sepals erect, unequal, oblong or elliptic to obovate-spatulate or broadly ovate or circular, 4–9 × 2.5–6 mm; laminar glands lines to dots, margin entire or ± eroded-denticulate with narrow hyaline margin, apex acute (rarely) or apiculate to obtuse or rounded. Petals golden to pale yellow, sometimes tinged red, narrowly to broadly obovate, 0.8–2.5 × 0.6–1.5 cm, 2–4 × as long as sepals; margin entire with row of intramarginal gland-dots; apiculus rounded or obscure. Stamen fascicles each with (30–)40–60 stamens, longest 5–13 mm, ca. 1/2 as long as petals. Ovary ± broadly ovoid, ca. 3.5 × 7 mm; styles 2.5–6 mm, 0.7–1.2 × as long as ovary, free, erect, outcurved toward apex. Capsule narrowly ovoid-pyramidal to subglobose, 0.9–1.2(–1.4) cm × 8–10 mm. Seeds dark brown, 1–1.2 mm, not or scarcely carinate; testa linear-foveolate. Fl. Apr–Aug, fr. Jul–Nov.

Dry, usually open habitats such as slopes, thickets, open forests; 1300–3000 m. C and SW Guizhou, C and S Sichuan, Yunnan [Indonesia (Sumatra), Myanmar, Thailand, N Vietnam].

Hypericum henryi forms a complex with the following two species (*H. patulum* and *H. uralum*). It can be divided into three not easily separable subspecies, of which two (*H. henryi* subsp. *henryi* and *H. henryi* subsp. *uraloides*) tend to merge into *H. patulum* and *H. uralum*, respectively.

- 1a. Sepals entire, at least outer broadly elliptic; stems erect, not or weakly frondose 19b. subsp. *hancockii*
- 1b. Sepals eroded-denticulate or, if entire, then elliptic or narrowly oblong to oblanceolate; stems erect to spreading, sometimes frondose.
 - 2a. Sepals eroded-denticulate to subentire, usually apiculate, broadly oblong to broadly ovate; leaf apex usually apiculate-obtuse to rounded 19a. subsp. *henryi*
 - 2b. Sepals entire, rarely apiculate, elliptic to narrowly oblong or obovate-spatulate; leaf apex acute or rarely obtuse 19c. subsp. *uraloides*

19a. *Hypericum henryi* subsp. *henryi*

西南金丝桃(原亚种) xi nan jin si tao (yuan ya zhong)

Stems erect to arching or divaricate, ± persistently 4-lined, not or weakly frondose. Leaves ovate-lanceolate or rarely ellip-

tic to broadly ovate, base cuneate to rounded, apex acute to apiculate-obtuse or rounded. Inflorescence 1–7-flowered. Flowers 2–4 cm in diam. Sepals broadly oblong or broadly elliptic to broadly ovate or circular, margin subentire to eroded-denticulate, apex rounded-apiculate to rounded. Petals broadly ovate, 1–2.2 cm. Styles 4–5 mm, ca. 0.9 × as long as ovary. Capsule broadly ovoid.

• 1500–2600 m. C Guizhou (Guiyang, Pingba), S Sichuan (“Pai-yentsing”), N Yunnan.

The locality in S Sichuan may be Baiyanjin, a small locality actually in Yanjin Xian in NE Yunnan, close to the Sichuan border.

19b. *Hypericum henryi* subsp. *hancockii* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 261. 1985.

蒙自金丝桃 meng zi jin si tao

Stems erect, sometimes becoming 2-lined, rarely weakly frondose. Leaves narrowly elliptic or lanceolate to ovate-oblong, base angustate to rounded, apex acute to obtuse. Inflorescence 1–6-flowered. Flowers 2.5–5 cm in diam. Sepals (at least outer) broadly elliptic or broadly oblong to circular, margin entire, apex obtuse to rounded-apiculate. Petals 1.4–2.5 cm, narrowly to broadly obovate. Styles 4–6 mm, 0.8–1.2 × as long as ovary. Capsule narrowly ovoid-pyramidal to broadly ovoid.

1300–2000 m. S and SE Yunnan [Indonesia (Sumatra), Myanmar, Thailand, N Vietnam].

19c. *Hypericum henryi* subsp. *uraloides* (Rehder) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 263. 1985.

岷江金丝桃 min jiang jin si tao

Hypericum uraloides Rehder in Sargent, Pl. Wilson. 3: 452. 1917.

Stems erect to arching, ± persistently 4-lined, not or distally frondose. Leaves narrowly elliptic or narrowly lanceolate to ovate-lanceolate, base angustate to cuneate or rarely rounded, apex acute or rarely obtuse. Inflorescence 1–3-flowered. Flowers 1.2–4 cm in diam. Sepals elliptic to oblanceolate or narrowly oblong, subacute or apiculate-obtuse to rounded, entire. Petals 1–1.5 cm, broadly obovate. Styles 2–5 mm, 0.5–1 × as long as ovary. Capsule broadly ovoid-pyramidal to globose.

1700–3000 m. SW Guizhou (Pu’an), C and SW Sichuan (Min Jiang, Muli), S and W Yunnan [NW Myanmar].

20. *Hypericum patulum* Thunberg in Murray, Syst. Veg., ed. 14, 700. 1784.

金丝梅 jin si mei

Hypericum argyi H. Leveille & Vaniot; *Komana patula* (Thunberg) Y. Kimura ex Honda; *Norysca patula* (Thunberg) J. Voigt.

Shrubs, 0.3–1.5(–3) m tall, bushy; branches spreading, sometimes weakly frondose. Stems 4-lined or 4-angled when young, soon 2-lined, sometimes eventually terete; internodes 0.8–4 cm, usually shorter than leaves. Leaves with petiole 0.5–2 mm; blade lanceolate or oblong-lanceolate to ovate or oblong-ovate, 1.5–6 × 0.5–3 cm, thickly papery, abaxially rather glaucous; laminar glands short streaks and dots; abaxial glands ± dense; main lateral veins 3-paired, tertiary reticulation scarcely

visible; base narrowly or broadly cuneate to short angustate, apex obtuse-apiculate to rounded-apiculate. Inflorescence 1–15-flowered, from 1 or 2 nodes, flat-topped, sometimes with short terminal internode and/or with 1–3-flowered branches from middle of stem; bracts deciduous, narrowly elliptic to narrowly oblong. Pedicels 2–4(–7) mm. Flowers 2.5–4 cm in diam., ± deeply cupped; buds broadly ovoid, apex obtuse. Sepals erect, subequal to unequal, often reddish, broadly ovate or broadly elliptic or subcircular to oblong-elliptic or obovate-spatulate, 5–10 × 3.5–7 mm; laminar glands lines; margin eroded-denticulate to ciliolate with markedly hyaline margin, apex obtuse to rounded or retuse and usually apiculate. Petals golden yellow, not tinged red, oblong-obovate to broadly obovate, 1.2–1.8 × 1–1.4 cm, 1.5–2 × as long as sepals; margin entire or slightly eroded-denticulate with row of intramarginal gland-dots; apiculus rounded to obsolete. Stamen fascicles each with 50–70 stamens, longest 7–12 mm, 0.4–0.5 × as long as petals. Ovary ± broadly ovoid, 5–6 × 3.5–4 mm; styles 4–5.5 mm, 0.75–0.95 × as long as ovary, free, ± erect, outcurved toward apex. Capsule broadly ovoid, 0.9–1.1 cm × 8–10 mm. Seeds dark brown, 1–1.2 mm, not or scarcely carinate; testa linear-foveolate. Fl. May–Sep, fr. Jul–Oct. $2n = 20$ ($2n = 36$ was based on a misidentification).

Open forests and thickets, cliffs, roadsides; (300–)450–2400 m. Native in N Guizhou, Sichuan; probably originally introduced into Anhui, Fujian, Guangxi, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Taiwan, Zhejiang [cultivated widely in gardens and naturalized in Japan, India, South Africa, and elsewhere].

Several gatherings from Yunnan approach *Hypericum patulum* in form, but they all have 4-lined or 4-angled stems and are therefore better placed in *H. henryi* subsp. *henryi*.

21. *Hypericum uralum* Buchanan-Hamilton ex D. Don, Bot. Mag. 50: t. 2375. 1823.

匙萼金丝桃 *chi e jin si tao*

Hypericum patulum Thunberg var. *attenuatum* Choisy; *H. patulum* var. *uralum* (Buchanan-Hamilton ex D. Don) Koehne; *Norysca urala* (Buchanan-Hamilton ex D. Don) K. Koch.

Shrubs, 0.3–2 m tall; branches arching, often frondose. Stems 4-lined or 4-angled and strongly ancipitous when young, eventually 2-lined or terete; internodes 0.5–2 cm, shorter than leaves. Leaves with flat petiole 0.5–1 mm; blade lanceolate or when older sometimes ovate, 1–4 × 0.4–2.4 cm, thickly papery, abaxially ± densely glaucous; laminar glands streaks (toward midvein) and dots; abaxial glands usually ± dense; main lateral veins 3-paired, tertiary reticulation scarcely visible; base narrowly or rarely broadly cuneate, apex acute to rounded-apiculate. Inflorescence 1–3(–10)-flowered, from 1 or 2 nodes, nearly flat-topped, with short terminal internode, often with 1–3-flowered branches from middle of stem; bracts deciduous, narrowly oblong. Pedicels 3–7 mm. Flowers 1.5–3 cm in diam., ± deeply cupped; buds broadly ovoid to globose, apex obtuse to rounded. Sepals erect, subequal to unequal, oblong or elliptic to oblong-spatulate, 3.5–6(–9) × (1–)2–5(–6.5) mm; laminar glands lines, margin entire with narrowly hyaline margin, apex rounded or very rarely obtuse. Petals golden to deep yellow, not tinged red, broadly obovate to subcircular, 0.9–1.8 cm × 5–12 mm, 2.5–3 ×

as long as sepals; margin entire, eglandular; apiculus rounded or obsolete. Stamen fascicles each with 40–60 stamens, longest 4–6(–8) mm, 0.25–0.5 × as long as petals. Ovary broadly ovoid to globose, 3–5 × 2.5–3 mm; styles 2.5–4.5 mm, 0.6–0.9(–1) × as long as ovary, free, erect and divergent toward apex or wholly outcurving. Capsule subglobose or more rarely broadly ovoid, 7–11(–13) × 7–11 mm. Seeds dark brown, 0.4–0.6 mm, scarcely carinate; testa linear-foveolate. Fl. Jul–Sep, fr. Aug–Oct. $2n = 20$.

Dry open habitats, sometimes in thickets and by streams; 1500–3600 m. Xizang (Moindawang, Zayü), NW Yunnan [Bhutan, NE India, N Myanmar, Nepal, Pakistan].

Hypericum uralum is sometimes very similar to *H. henryi* subsp. *uraloides* but can usually be distinguished by the frondose stems and broader leaves and sepals.

22. *Hypericum lagarocladum* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 247. 1985.

纤枝金丝桃 *xian zhi jin si tao*

Shrubs, 0.4–1.5(–3) m tall; branches arching to spreading, slender, often rather lanky. Stems 4-lined and ancipitous when very young, soon not ancipitous, sometimes becoming 2-lined or terete; internodes 1–4 cm, shorter than leaves. Leaves with petiole 1–1.5(–2) mm; blade narrowly elliptic or rarely lanceolate or lanceolate-elliptic to ± broadly oblong-elliptic or (on strong central shoots) ovate-elliptic to broadly oblong-ovate or broadly triangular-ovate, 1.8–5 × 0.6–4.5 cm, thickly papery, abaxially ± glaucous; laminar glands dots and very short streaks; abaxial glands dense to absent; main lateral veins 2–4-paired, tertiary reticulation lax, not or scarcely visible; base cuneate, apex acute or apiculate-obtuse to rounded. Inflorescence 1–10(–15)-flowered, from apical node, ± flat-topped; bracts reduced and narrowly elliptic to linear or leaflike, persistent. Pedicels 2–10 mm (to 1.5 cm in fruit). Flowers 3–5 cm in diam., substellate to shallowly cupped; buds narrowly to broadly ovoid, apex acute or apiculate to obtuse. Sepals erect or suberect in bud, suberect or outcurved in fruit, equal to subequal, sometimes leaflike, narrowly lanceolate to oblong-ovate or ovate, (6–)7–10 × 3–5.5 mm (enlarging in fruit to ca. 1.1 × 0.7 cm); laminar glands lines, sometimes distally interrupted; margin entire or apically minutely and ± irregularly denticulate, apex acute to obtuse. Petals golden yellow, narrowly to rather broadly obovate, 1.8–2.4 × 1–1.5(–1.8) cm, 2.5–3 × as long as sepals; margin entire or minutely glandular-denticulate; apiculus rounded or obsolete. Stamen fascicles each with 40–50 stamens, longest 1.2–1.8 cm, 0.6–0.7 × as long as petals. Ovary narrowly ovoid-conic to broadly ovoid, 5–8 × 3–5 mm; styles 4–7 mm, 0.5–0.7(–0.85) × as long as ovary, free, suberect to divergent, outcurved near apex. Capsule ovoid-conic to ovoid, 1–1.7 × 0.7–1.2 cm, shallowly 5-lobed. Seeds purplish brown, ca. 1.4 mm, shallowly carinate; testa linear-reticulate. Fl. Apr–Aug, fr. Jun–Nov.

• Thickets on slopes or in valleys, streamsides, roadsides; (400–)1500–2700 m. Guizhou, W Hunan, S and W Sichuan, NE Yunnan.

Hypericum lagarocladum has a spreading habit, at least when young; and even if it grows taller later on, the ends of the arching branches tend to be lanky. It exhibits a SE–NW trend in variation, the Hunan and Guizhou plants having a more erect habit and narrower

leaves and sepals, while in those from Sichuan and most of Yunnan the habit is spreading and the leaves and sepals are broader. Apart from a small area of overlap in variation in SW Sichuan and extreme NW Yunnan, the two ends of the trend seem to remain distinct and can be regarded as subspecies.

- 1a. Leaves broadly elliptic to broadly ovate, rounded to subretuse; sepals lanceolate to oblong-lanceolate or narrowly ovate; capsule ovoid to ovoid-conic; plant to 0.7(-1) m tall 22a. subsp. *lagarocladum*
- 1b. Leaves narrowly elliptic, acute to obtuse; sepals lanceolate to narrowly elliptic; capsule narrowly ovoid-conic; plant to 1.2 m tall 22b. subsp. *angustifolium*

22a. *Hypericum lagarocladum* subsp. *lagarocladum*

纤枝金丝桃(原亚种) xian zhi jin si tao (yuan ya zhong)

Plants 0.4–1 m tall; branches widely arching to spreading, forming wide hummock at first, later stems more narrowly arching. Stem internodes 1.8–4 cm. Leaves narrowly elliptic or ovate-elliptic to (on stronger stems) broadly oblong-ovate to broadly triangular-ovate, 1.8–6 × 0.6–3(–4.5) cm; abaxial glands absent, apex obtuse to rounded or retuse. Inflorescence 1–10(–14)-flowered. Sepals ovate-lanceolate to oblong-lanceolate, 4–5 mm wide, apex acute to obtuse. Capsule ovoid to ovoid-conic (4.5–6 mm wide).

- 1500–2700 m. S and W Sichuan, NE Yunnan.

22b. *Hypericum lagarocladum* subsp. *angustifolium* N. Robson, Acta Phytotax. Sin. 43: 276. 2005.

狭叶金丝桃 xia ye jin si tao

Plants to 1.2 m tall; branches arching to pendulous. Stem internodes 1–2.5 cm. Leaves narrowly elliptic to narrowly lanceolate, 2–4.5 × 0.8–1.1 cm; abaxial glands dense to absent, apex acute to obtuse. Inflorescence 1(or 2)-flowered. Sepals lanceolate, ca. 3 mm wide, apex acuminate. Capsule narrowly ovoid-conic (3–4.5 mm wide).

- 400–1400 m. Guizhou, W Hunan, E Yunnan.

23. *Hypericum wilsonii* N. Robson, J. Roy. Hort. Soc. 95: 492. 1970.

川鄂金丝桃 chuan e jin si tao

Shrubs, 0.5–1 m tall; branches spreading or pendulous to somewhat prostrate. Stems 4-lined and ancipitous when young, becoming 2-lined, eventually terete; internodes 1–4.5 cm, shorter than to ca. as long as leaves. Leaves with petiole 0.5–1.5 mm; blade elliptic or elliptic-lanceolate to lanceolate or ovate-lanceolate, 2.3–5.5(–6) × (0.6–)1.2–2.9 cm, thickly papery, abaxially paler or ± glaucous; laminar glands dots and short to longish streaks; abaxial glands sparse or absent; main lateral veins 4- or 5-paired, tertiary reticulation scarcely visible; base broadly cuneate to rounded, apex subacute or apiculate-obtuse to rounded. Inflorescence (1–)3- to ca. 22-flowered, from 1(or 2) nodes, nearly round-topped; bracts narrow lanceolate to leaflike, persistent. Pedicels 0.8–1.2 cm. Flowers 4–5(–6) cm in diam., stellate; buds narrowly ovoid-conic, apex acute to acu-

minate. Sepals ± erect, equal, lanceolate or narrowly elliptic, 7–10 × 2–4.5 mm, laminar glands lines, margin entire, apex acutely acuminate to short aristate. Petals golden yellow, obovate, 2–2.5 × 1.2–2 cm, 2.5–3 × as long as sepals; margin entire or distally minutely glandular-denticulate; apiculus acute. Stamen fascicles each with 30–35 stamens, longest 1–1.5 cm, 0.35–0.5 × as long as petals. Ovary ± broadly ovoid, 5–6 × 3–3.5 mm; styles 7–9 mm, 1.5–1.8 × as long as ovary, free, erect, outcurved at apex. Capsule shallowly 5-lobed, ovoid, 7–12 × 5–8 mm. Seeds dark reddish brown, ca. 1 mm, distally shallowly winged; testa linear-reticulate. Fl. Apr–Jul, fr. Aug–Sep.

- Open forests, thickets on slopes, grasslands; 1000–1800 m. W Hubei, ?Hunan.

Hypericum wilsonii takes further the trend toward a spreading habit described in *H. lagarocladum*, but in addition has acute to acuminate flower buds and relatively longer styles. The record from Hunan has not been substantiated, and one from SW Sichuan (Huidong) is erroneous.

24. *Hypericum beanii* N. Robson, J. Roy. Hort. Soc. 95: 490, excl. f. 235. 1970.

栽秧花 zai yang hua

Shrubs, 0.6–2 m tall, bushy; branches erect or arching. Stems 4-lined and ancipitous when young, sooner or later terete; internodes 1–6 cm, shorter than to exceeding leaves. Leaves with petiole 0.5–2(–2.5) mm; blade narrowly elliptic or elliptic-lanceolate or oblong-lanceolate to triangular-ovate, 2.5–6.5 × 1–3.5(–3.8) cm, thickly papery to subleathery, abaxially paler or glaucous; laminar glands dots to rather long streaks; adaxial glands dense or sparse (near midvein) or absent; main lateral veins 3–5-paired, sometimes prominent, tertiary reticulation lax, obscure; base cuneate to rounded-truncate, apex acute to apiculate-rounded. Inflorescence 1–11(–14)-flowered, from 1(or 2) nodes, nearly flat-topped; bracts narrowly lanceolate (upper) to leaflike (lower), persistent. Pedicels 4–10 mm (to 1.3 cm in fruit). Flowers 3–5 cm in diam., stellate to shallowly cupped; buds ovoid-conic to broadly ovoid, apex acute to obtuse. Sepals spreading to outcurving or erect, equal to subequal, narrowly to broadly ovate, 5–10 × 4–6 mm (enlarging in fruit to 1.4 × 1.2 cm), margin entire or distally minutely glandular-denticulate with hyaline margin, apex acute or apiculate to obtuse. Petals golden yellow, not or scarcely tinged red, broadly ovate to oblong, (1.5–)2–2.6 × 1.3–2.2 cm, 2–4.5 × as long as sepals, eglandular, margin entire or eroded-denticulate, apiculus obtuse to rounded or obsolete. Stamen fascicles each with 40–55 stamens, longest 1–1.7 cm, 0.5–0.7 × as long as petals. Ovary narrowly to broadly pyramidal-ovoid, 5.5–9 × 4–5 mm; styles 3.5–7 mm, 0.45–0.85 × as long as ovary, free, suberect, outcurved near apex. Capsule narrowly cylindrical-ellipsoid to broadly ovoid, 1.5–2 × 0.8–1.2 cm. Seeds dark chestnut brown, 1–1.5 mm, distally winged, otherwise variably carinate; testa linear-reticulate. Fl. Mar–Jul(–Oct), fr. Jul–Oct. 2n = 36*.

- Open forests, thickets, streamsides and grassy or stony slopes; 1500–2100 m. SW Guizhou (Anlong, Zhenfeng), C Sichuan (Hanyuan), E Yunnan.

Hypericum beanii, like *H. lagarocladum*, shows a marked trend in variation, in this case from south to north. From S Yunnan (Mengzi) to

the Kunming region, the leaves are mostly elliptic to lanceolate and acute and the main venation is not prominent, the flowers are stellate, the sepals spread in bud and fruit, and the ovary and capsule are cylindrical-ellipsoid to narrowly ovoid; northward into Sichuan, the leaves become triangular-lanceolate to triangular-ovoid with rather prominent main venation, the flowers become cupped, the sepals become erect in bud and fruit, and the ovary and capsule become broadly pyramidal-ovoid. The transition, however, is gradual, so it is not possible to recognize two subspecies.

The easternmost population, in SW Guizhou (Anlong), is distinct in having broadly elliptic to oblong-ovate rounded leaves, sepals erect in fruit (flowering state not known), and ovoid capsules. It appears to represent a separate morphological trend and, when better known, may deserve taxonomic recognition (*Hypericum beanii* forma). In the key, this population runs down to lead 34a, not to lead 33a.

25. *Hypericum addingtonii* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 251. 1985.

碟花金丝桃 die hua jin si tao

Shrubs, 1.5–2 m tall, spreading to 2.5 m wide; branches arching to spreading. Stems 4-angled but not ancipitous when young, soon terete; internodes 1–5 cm, shorter than leaves. Leaves with petiole 1–2.5 mm; blade elliptic-oblong to ovate-lanceolate or oblong-lanceolate, (2–)2.5–8.5 × 1–3.5 cm, thickly papery, abaxially paler but not glaucous; laminar glands dots and short streaks; adaxial glands absent or rarely sparse; main lateral veins 3- or 4(or 5)-paired, without visible tertiary reticulation; base cuneate, apex apiculate or obtuse to rounded. Inflorescence 1–3(–5)-flowered, from apical node, flat-topped; bracts lanceolate, persistent. Pedicels 2–10 mm. Flowers (3–)5–6.5 cm in diam., shallowly cupped; buds ovoid, apex obtuse. Sepals erect, subequal, ovate to oblong-ovate or oblong-spatulate, 7–10 × 4.5–6.2 mm; laminar glands lines, sometimes interrupted; margin entire or minutely denticulate and sometimes with narrowly hyaline margin, apex acute or apiculate to obtuse. Petals golden yellow, broadly obovate to subcircular, (2–)2.5–3.2 × (1.2–)1.5–3.2 cm, 3–4 × as long as sepals, eglandular, margin entire or eroded-denticulate, apiculus rounded. Stamen fascicles each with 40–45 stamens, longest 1.2–1.5 cm, ca. 2/5 as long as petals. Ovary ovoid, 5–7 × 3–5 mm; styles 4.5–5(–7) mm, 0.7–0.8(–1) × as long as ovary, free, suberect, outcurved near apex. Capsule ovoid to cylindrical-ovoid, ca. 2 × 1–1.2 cm. Seeds dark reddish brown, 1–1.2 mm, not or scarcely carinate; testa linear-foveolate. Fl. Apr–Jul, fr. Oct.

• Bamboo scrub, thickets on grassy slopes, *Tsuga* forest edges; 1800–3400 m. NW and W Yunnan (Gongshan, Weishan, Yunlong).

Hypericum addingtonii is very similar to some populations of the southern form of *H. beanii*, differing from them by the more spreading habit, the broader, apically obtuse to rounded leaves, the broader sepals, and the relatively shorter stamens. Its affinities are clearly with the latter species and not, as had been thought, with *H. hookerianum*.

26. *Hypericum latisepalum* (N. Robson) N. Robson, Acta Phytotax. Sin. 43: 276. 2005.

宽萼金丝桃 kuan e jin si tao

Hypericum bellum subsp. *latisepalum* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 274. 1985.

Shrubs, to 1.5 m tall, bushy; branches erect. Stems 4-angled and slightly ancipitous when young, very soon terete; internodes 1.5–6(–9) cm, shorter than to exceeding leaves. Leaves with petiole 1.5–3 mm; blade lanceolate or oblong-lanceolate to ± broadly ovate or triangular-ovate (l:w = 1.8–2.5), (3–)3.7–6.7(–8.7) × (1.3–)1.6–4.6 cm, thickly papery, abaxially paler or glaucous; laminar glands dots and short streaks; abaxial glands absent; main lateral veins 3- or 4-paired, tertiary reticulation lax or not visible; base cuneate to rounded, margin plane, apex acute (when young) or obtuse to rounded. Inflorescence 1–14-flowered, from apical node, nearly flat-topped, rarely with flowering branches from lower nodes; bracts narrowly elliptic or leaflike, persistent. Pedicels 3–14 mm (to 3 cm in fruit). Flowers 4–6 cm in diam., cupped; buds broadly ovoid, apex acute to obtuse. Sepals erect, subequal, ovate to broadly elliptic, 0.8–1.3 cm × (5–)6–8 mm, laminar glands lines, margin entire, apex obtuse or apiculate-obtuse to rounded. Petals golden yellow, broadly obovate, 2.3–3.7 × 1.8–3 cm, ca. 3 × as long as sepals, eglandular, margin entire, apiculus rounded. Stamen fascicles each with 45–55 stamens, longest (1–)1.4–2.1 cm, (0.5–)0.6–0.7 × as long as petals. Ovary broadly ovoid, 7–8 × 6–7 mm; styles (5–)6–7 mm, 0.75–1(–1.1) × as long as ovary, free, suberect, outcurved near apex. Capsule broadly ovoid, 1.2–1.5 × 1–1.5 cm. Seeds dark reddish brown, ca. 1.2 mm, carinate or nearly not; testa scalariform-reticulate. Fl. Jun–Oct, fr. (?Aug–)Sep–Nov.

Open forests, forest edges, thickets, grassy slopes; 2500–2900(–3700) m. SE Xizang (Zayü), NW and W Yunnan [NE India, N Myanmar].

Hypericum latisepalum is closely related (?ancestral) to *H. bellum* but is morphologically distinct. It has a more southerly distribution, mainly S of the Himalayan range except for its incursion into Xizang. Some populations approach the northern form of *H. beanii* closely in morphology but can be distinguished by the ovoid rather than pyramidal-ovoid ovary and the more deeply cupped flowers.

27. *Hypericum bellum* H. L. Li, J. Arnold Arbor. 25: 308. 1944.

美丽金丝桃 mei li jin si tao

Shrub 0.3–1.2 m tall, often forming low thickets; branches arching. Stems 4-lined and slightly ancipitous when young, very soon terete; internodes 1–6.5 cm, shorter than to exceeding leaves. Leaves with petiole 0.5–2.5 mm; blade elliptic or ovate-oblong to broadly rhombic or subcircular (l:w = 1.1–1.6), 1.5–6.5 × 0.7–4.3 cm, thickly papery, abaxially paler or glaucous; laminar glands dots and short streaks; abaxial glands absent; main lateral veins 3- or 4-paired, without visible tertiary reticulation; base truncate to subcordate or, if cuneate, then margin undulate, apex rounded to emarginate. Inflorescence 1–7-flowered from apical node, nearly flat-topped; bracts narrowly elliptic to linear, persistent. Pedicels 4–15(–30) mm. Flowers 2.5–3.5 cm in diam., cupped; buds ovoid, apex obtuse to rounded. Sepals erect, subequal, narrowly elliptic or oblong to obovate, 3–9 × 2.5–6 mm, laminar glands lines, margin entire or finely eroded-denticulate, eglandular and often with hyaline margin, apex rounded or rarely subapiculate. Petals golden yellow to butter-yellow or rarely pale yellow, narrowly obovate, 1.5–2.5(–3) × 1.1–2.1 cm, 3–6 × as long as sepals, eglandular, mar-

gin entire, apiculus rounded. Stamen fascicles each with 45–50 stamens, longest 6–10(–11) mm, 0.35–0.4(–0.6) × as long as petals. Ovary broadly to narrowly ovoid, 4–6 × 3–3.5 mm; styles 3–5 mm, 0.6–0.9 × as long as ovary, free, suberect, outcurved near apex. Capsule usually narrowly ovoid, 1–1.5 cm × 6–10 mm. Seeds dark brown, not carinate; testa scalariform-reticulate. Fl. Jun–Aug, fr. Aug–Oct.

Open forests, forest edges, thickets, grassy slopes; (1400–)1900–3200(–3500) m. W Sichuan, SE Xizang, NW Yunnan [NE India].

Hypericum bellum shows a westward trend from plane leaves without adaxial glands (NW Yunnan) to undulate leaves with dense adaxial glands (W part of SE Xizang). The Yunnan plants are most similar to *H. latisepalum* but can be distinguished inter alia by the narrower sepals and capsule (see key).

28. *Hypericum kouytchense* H. Léveillé, Bull. Soc. Agric. Sarthe 39: 322. 1904.

贵州金丝桃 *gui zhou jin si tao*

Norysca kouytchensis (H. Léveillé) Y. Kimura.

Shrubs, 1–1.8 m tall; branches erect or arching. Stems 4-lined and ± ancipitous when young, becoming 2-lined, eventually terete; internodes 1–4 cm, shorter than to exceeding leaves. Leaves with petiole 0.5–1.5 mm; blade elliptic or lanceolate to ovate or triangular-ovate, 2–5.8 × 0.6–3 cm, thickly papery, abaxially paler but not or scarcely glaucous; laminar glands dots and short streaks; abaxial glands ± dense; main lateral veins 3- or 4(or 5)-paired, tertiary reticulation obscure or invisible; base cuneate or subangulate to rounded, apex acute to obtuse or rarely rounded-apiculate. Inflorescence 1–7(–11)-flowered, from 1(or 2) nodes, nearly flat-topped; bracts deciduous, narrowly lanceolate to subleaflike. Pedicels 5–10 mm. Flowers 4–6.5 cm in diam., stellate; buds narrowly ovoid, apex acute to subacuminate. Sepals spreading, equal, narrowly ovate to lanceolate, 0.7–1.5 cm × 2.5–7 mm, laminar glands lines, margin entire, apex acute to acutely acuminate. Petals bright golden yellow, sometimes becoming recurved, obovate-oblong to obovate, 2.4–4 × 1.6–2.5 cm, ca. 3 × as long as sepals; margin minutely glandular-denticulate toward apex; apiculus acute. Stamen fascicles each with 35–50 stamens, longest 1.8–2.9 cm, 0.7–0.8 × as long as petals. Ovary ovoid-pyramidal to narrowly ovoid, 6–8 × 4–6 mm; styles 8–10 mm, 1.2–1.35 × as long as ovary, free, erect, slightly outcurved at apex. Capsule ± narrowly ovoid-pyramidal to ovoid, 1.7–2 cm × 8–10 mm, turning bright red during maturation. Seeds dark purplish brown, 2–3.2 mm, narrowly winged; testa nearly smooth. Fl. May–Jul(–?Aug), fr. Aug–Sep. $2n = 36^*$, 40^* .

• Pastures, hillsides, streamsides, among rocks; 1500–2000 m. Guangxi, Guizhou.

29. *Hypericum pseudohenryi* N. Robson, J. Roy. Hort. Soc. 95: 493. 1970.

北栽秧花 *bei zai yang hua*

Shrubs, 0.7–1.7 m tall; branches erect to spreading. Stems 4-angled and ancipitous in first year, then terete, stout; internodes 0.8–6 cm, shorter than to exceeding leaves. Leaves with petiole 0.5–1 mm; blade ovate or ovate-oblong to lanceolate or

lanceolate-oblong, 2–6.6(–8) × 0.5–3.5 cm, thickly papery, abaxially paler or somewhat glaucous; laminar glands dots and short streaks; abaxial glands densest or present only near midvein; main lateral veins 2- or 3-paired, the upper forming distinct undulating intramarginal vein, tertiary reticulation lax, obscure; base narrowly to ± broadly cuneate, apex rounded or rarely apiculate-obtuse. Inflorescence 1–7(to ca. 25)-flowered, from apical node, nearly flat-topped; bracts narrowly lanceolate to leaflike, persistent. Pedicels 4–11 mm. Flowers 3–5.5 cm in diam., stellate to shallowly cupped; buds ovoid-pyramidal, subacute. Sepals erect to outcurved, subequal, broadly to narrowly ovate-oblong, 6–9(–13) × 3–7 mm, laminar glands lines, margin entire or minutely denticulate toward apex with narrowly hyaline margin, apex acute to subacuminate or obtuse. Petals golden yellow, sometimes becoming reflexed, obovate, 1.6–3.3 × 1–2 cm, 2.5–3 × as long as sepals; apiculus obtuse; margin eglandular, entire or irregularly eroded-denticulate. Stamen fascicles each with ca. 40 stamens, longest 1.4–2 cm, 0.75–0.85 × as long as petals. Ovary ± broadly ovoid, 5–9 × 3.5–6 mm; styles 5.5–11 mm, somewhat longer than ovary, free, suberect to divergent, outcurved near apex. Capsule ovoid-conic to ovoid, 1.2–1.7 × 1–1.4 cm. Seeds dark orange-brown, 1.5–2 mm, narrowly carinate; testa linear-foveolate. Fl. Jun–Sep, fr. Sep–Nov.

• *Pinus* forests, thickets, dry grassy or stony slopes; 1400–3800 m. SW and W Sichuan, NE and NW Yunnan.

The area of distribution of *Hypericum pseudohenryi* overlaps that of the closely related *H. forrestii*, and plants with characters intermediate between these species have been found.

30. *Hypericum forrestii* (Chittenden) N. Robson, J. Roy. Hort. Soc. 95: 491. 1970.

川滇金丝桃 *chuan dian jin si tao*

Hypericum patulum Thunberg var. *forrestii* Chittenden, J. Roy. Hort. Soc. 48: 234. 1923; *H. patulum* f. *forrestii* (Chittenden) Rehder.

Shrubs, 0.3–1.5 m tall, bushy; branches erect or somewhat spreading. Stems 4-angled and slightly ancipitous when young, soon terete; internodes 1–4.5(–6) cm, usually shorter than leaves. Leaves with petiole 0.5–2 mm, rather broad; blade lanceolate or triangular-ovate to ± broadly ovate, 2.5–3(–6) × 0.9–3.2(–3.5) cm, thickly papery, abaxially paler but not glaucous; laminar glands short streaks and dots; abaxial glands dense, especially near midvein; main lateral veins 4- or 5-paired, tertiary reticulation obscure or invisible; base broadly cuneate to rounded, apex obtuse to rounded or slightly retuse. Inflorescence 1- to ca. 20-flowered, from 1(or 2) nodes, nearly flat-topped; bracts lanceolate or ± leaflike, persistent. Pedicels 4–10 mm. Flowers (2.5–)3.5–6 cm in diam., ± deeply cupped; buds broadly ovoid, apex obtuse to rounded. Sepals erect, subequal to equal, ovate or ± broadly elliptic to subcircular, 6–9 × 3–8 mm; laminar glands lines, ± interrupted distally; margin entire or finely eroded-denticulate toward apex with margin often hyaline, apex rounded or rarely subapiculate. Petals golden yellow, broadly obovate, 1.8–3 × 1.1–2.5 cm, 3–3.5 × as long as sepals; margin entire or remotely glandular-subdenticulate; apic-

ulus rounded. Stamen fascicles each with 40–65 stamens, longest 1–1.5 cm, 0.4–0.6 × as long as petals. Ovary broadly ovoid, (4.5–)6–8 × 4–4.5 mm; styles 4–7 mm, 0.7–0.9(–1) × as long as ovary, free, suberect, outcurved near apex. Capsule ± broadly ovoid, 1.2–1.8 × 0.8–1.4 cm. Seeds dark reddish brown, 1.2–1.7

mm, distally slightly carinate or winged; testa scalariform-reticulate. Fl. May–Sep, fr. Aug–Oct. $2n = 36, 38$.

Open stony situations on hillsides, sometimes beside streams, at *Pinus* forest margins; 1500–3000(–4000) m. WC Sichuan (Kangding, Tianquan), N and SW Yunnan [NE Myanmar].

2. *Hypericum* sect. *Takasagoya* (Y. Kimura) N. Robson, *Blumea* 20: 252. 1973 [“1972”].

台湾金丝桃组 tai wan jin si tao zu

Takasagoya Y. Kimura, *Bot. Mag. (Tokyo)* 50: 498. 1936.

Shrubs or shrublets, glabrous, without dark glands. Sepals free or united at base, margin entire. Petals and stamens deciduous after anthesis; petal apiculus sometimes present. Stamen fascicles 5, free, anthers ± basifixed. Styles 5, completely united. Capsule valves smooth. Seeds carinate or ± winged.

Five species: China (Taiwan), Japan (Ryukyu Islands: Uotori Island), Philippines (Luzon); four species (three endemic) in China.

31. *Hypericum formosanum* Maximowicz, *Bull. Acad. Imp. Sci. Saint-Petersbourg* 27: 428. 1881.

台湾金丝桃 tai wan jin si tao

Takasagoya formosana (Maximowicz) Y. Kimura.

Shrubs, ca. 22 cm tall; branches spreading and arching. Stems 4-lined and ancipitous when young, soon 2-lined to terete; internodes 1.5–6 cm, usually shorter than leaves. Leaves sessile or with petiole to 1 mm; blade ovate or elliptic to oblong-elliptic, 2–6 × 1.1–2.9 cm, subleathery, abaxially paler but not glaucous; laminar glands dots, prominent; abaxial glands absent; main lateral veins 1- or 2-paired, the upper forming intramarginal vein, tertiary reticulation very faint or invisible; base cuneate to rounded, apex subacute to rounded. Inflorescence 1–3-flowered, terminal, and 1- or 2-flowered on subsidiary branches from up to 7(–10) nodes below, the whole cylindrical; bracts leaflike, bracteoles narrowly elliptic, subpersistent. Pedicels 5–10 mm. Flowers 2.5–3.5 cm in diam., stellate to very shallowly cupped; buds ± broadly ovoid, apex subacute to obtuse. Sepals very slightly connate, erect in bud, ascending in fruit, subequal to unequal, lanceolate or narrowly elliptic to oblanceolate or elliptic-ovate, 7–10 × 1.5–6 mm, laminar glands lines and dots, margin entire, apex acute to subacute. Petals golden yellow, obovate, (1–)1.3–1.7(–2) × 0.8–1.2 cm, ca. 2 × as long as sepals, eglandular, margin entire, apiculus very short, rounded. Stamen fascicles each with 25–40 stamens, longest 0.8–1.2 cm, ca. 0.7 × as long as petals. Ovary ovoid to subglobose, 3–4.5 × 3–3.5 mm; styles (6.5–)7–8(–8.5) mm, 1.5–2.5 × as long as ovary; stigmatic mass subglobose. Capsule broadly ovoid, 8–9 × ca. 6 mm. Seeds 1–2 mm, with apical expansion; testa ?linear-reticulate. Fl. Apr–Aug, fr. ?May–Sep.

● On well-drained banks or in stony areas; sea level to 500 m. N Taiwan (Taibei).

The long sepals easily distinguish *Hypericum formosanum* from all other species in *H.* sect. *Takasagoya* except *H. nakamurae*, which has larger flowers and elliptic to obovate leaves.

32. *Hypericum nakamurae* (Masamune) N. Robson, *Blumea* 20: 253. 1973 [“*nakamurae*,” “1972”].

清水金丝桃 qing shui jin si tao

Takasagoya nakamurae Masamune, *Trans. Nat. Hist. Soc. Taiwan* 30: 410. 1940 [“*nakamurae*”].

Shrubs, more than 0.5 m tall; branches ± spreading. Stems 4-lined and ancipitous when young, soon terete; internodes 0.6–3.5 cm, shorter than to exceeding leaves. Leaves sessile or subsessile; blade oblong to elliptic or obovate, 1–2.7(–3) × 0.5–1(–1.3) cm, subleathery, abaxially paler but not glaucous; glands dots, prominent; abaxial glands absent; main lateral veins 1-paired, upper laterals forming distinct intramarginal vein, tertiary reticulation nearly invisible; base cuneate to angustate, apex acute. Inflorescence 1–3-flowered, terminal, sometimes with 1-flowered short subsidiary branches from up to 3 nodes below, the whole short cylindrical; bracts leaflike; bracteoles narrowly elliptic or elliptic-lanceolate, persistent. Pedicels ca. 1 cm. Flowers 4–6 cm in diam., stellate; buds narrowly ovoid-pyramidal, apex acute. Sepals very slightly connate, spreading in flower, reflexed in fruit, linear-lanceolate to linear, 3.5–5(–8) × 0.7–1.2(–2) mm, laminar glands streaks and dots, margin entire, apex subacute to rounded. Petals bright yellow, obovate, 2–2.8 × 1–2 cm, 3.5–6 × as long as sepals, margin entire, eglandular, apiculus short. Stamen fascicles each with ca. 15 stamens, longest 1.2–1.6 cm, ca. 0.6 × as long as petals. Ovary narrowly ovoid-ellipsoid, 2.5–3(–5) × ca. 1.5 mm; styles 1.05–1.2(–1.5) cm, ca. 4 × as long as ovary; stigmatic mass capitate. Capsule narrowly ovoid to cylindrical, 7–9 × 3–4 mm. Seeds dark yellow-brown, 1.2–1.4 mm, with partial or entire narrow wing; testa linear-reticulate. Fl. Jun–?Jul, fr. Aug–Sep.

● Open limestone rock crevices; 1400–2400 m. E Taiwan (Hualian).

33. *Hypericum geminiflorum* Hemsley, *Ann. Bot. (Oxford)* 9: 144. 1895.

双花金丝桃 shuang hua jin si tao

Shrubs, 0.5–1.5 m tall; branches often spreading and pendulous. Stems 4-lined and ancipitous when young, eventually 2-lined to terete; internodes 0.9–3.5 cm, shorter than leaves. Leaves subsessile; blade oblong or oblong-lanceolate to elliptic or ovate, 1.8–4.5 × 0.6–2.2 cm, thickly papery, abaxially paler but not glaucous; laminar glands dots, adaxially sometimes prominent; abaxial glands absent; main lateral veins 1- or 2-

paired, the upper sometimes forming distinct intramarginal vein, tertiary reticulation faint or invisible; base broadly to narrowly cuneate, margin incrassate, apex acute to obtuse or rounded-apiculate. Inflorescence 1(-3)-flowered, terminal and on solitary or paired short subsidiary branches from up to 14 nodes below, the whole narrowly cylindrical; bracts leaflike, bracteoles deciduous, reduced. Pedicels 3-4 mm. Flowers 2-3 cm in diam., stellate; buds ovoid, apex acute to obtuse. Sepals free or slightly connate, erect, equal to subequal, broadly ovate or triangular-ovate or subcircular to oblong-lanceolate, (1-)1.5-3 × 1-2.5 mm, laminar glands mostly lines, margin entire, apex subacute to rounded. Petals bright yellow [or rarely white], obovate, 0.9-1.5 cm × 5-7 mm, 3-6 × as long as sepals, margin entire, eglandular, apiculus obsolete or absent. Stamen fascicles each with 5-11 stamens, longest 6-10 mm, ca. 0.65 × as long as petals. Ovary ± narrowly ellipsoid, 2.5-3.5 × 1.5-2.5 mm; styles 4-6(-7) mm, 1-2 × as long as ovary; stigmatic mass capitate to ellipsoid or cylindrical. Capsule narrowly cylindrical to cylindrical-conic, 5-11 × 3-5.5 mm. Seeds dark reddish brown, 0.6-1.5 mm, narrowly carinate with apical expansions or ± deeply winged; testa linear-reticulate. Fl. May-Aug, fr. Aug-Dec.

Open stony ground, mountain slopes, roadsides; 300-1800 m. Taiwan [Philippines (Luzon)].

Hypericum geminiflorum comprises two subspecies, one (subsp. *geminiflorum*) occurring at relatively low altitudes in SE Taiwan and Luzon, the other (subsp. *simplicistylum*) at higher altitudes in C and NW Taiwan.

- 1a. Style 1.3-2 × as long as ovary; sepals 1-2.5 mm; branches often spreading and pendulous 33a. subsp. *geminiflorum*
 1b. Style ca. as long as ovary; sepals 2.5-3 mm; branches erect or ascending 33b. subsp. *simplicistylum*

33a. *Hypericum geminiflorum* subsp. *geminiflorum*

双花金丝桃(原亚种) shuang hua jin si tao (yuan ya zhong)

Hypericum acutisepalum Hayata; *H. trinervium* Hemsley; *Takasagoya acutisepala* (Hayata) Y. Kimura; *T. geminiflora* (Hemsley) Y. Kimura; *T. trinervia* (Hemsley) Y. Kimura.

Shrubs, 0.5-1.5 m tall; branches often spreading or pendulous. Sepals broadly ovate or triangular-ovate or subcircular to oblong-lanceolate, 1-2.5 mm. Ovary 2.5-3.5 mm; styles 4-6(-7) mm, 1.3-2 × as long as ovary. Capsule narrowly cylindrical to narrowly cylindrical-conic.

Open stony ground; 300-1200 m. Taiwan [Philippines (Luzon)].

3. *Hypericum* sect. *Roscyna* (Spach) R. Keller in Engler & Prantl, Nat. Pflanzenfam. 3(6): 211. 1893.

黄海棠组 huang hai tang zu

Roscyna Spach, Ann. Sci. Nat., Bot., sér. 2, 5: 364. 1836.

Herbs, perennial, glabrous, without dark glands. Leaves without abaxial glands. Bracts and bracteoles deciduous or persistent. Sepals free, entire. Petals and stamens usually persistent after anthesis; petal apiculus short or absent. Stamen fascicles 5, free or occasionally apparently 4 (one pair united), anthers dorsifixed. Styles (4 or)5, partly united or more rarely free. Capsule valves longitudinally vittate; seeds not or apically winged.

33b. *Hypericum geminiflorum* subsp. *simplicistylum* (Hayata) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 12: 295. 1985.

小双花金丝桃 xiao shuang hua jin si tao

Hypericum simplicistylum Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 40. 1911; *H. geminiflorum* var. *simplicistylum* (Hayata) N. Robson; *Takasagoya simplicistyla* (Hayata) Y. Kimura.

Shrubs, 0.3-0.4 m tall; branches erect or ascending. Sepals broadly ovate to oblong, 2.5-3 mm. Ovary 4-4.3 mm; styles 3.5-5 mm, 1-1.3(-1.5) × as long as ovary. Capsule cylindrical to cylindrical-ellipsoid.

• Exposed stony ground, mountain slopes, roadsides; 1500-1800 m. Taiwan.

34. *Hypericum subalatum* Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 41. 1911.

方茎金丝桃 fang jing jin si tao

Hypericum kushakuense R. Keller; *Takasagoya subalata* (Hayata) Y. Kimura.

Shrubs, more than 0.5 m tall; branches ± ascending. Stems persistently 4-angled or narrowly 4-winged; internodes 1-2.5 cm, shorter than leaves. Leaves sessile; blade narrowly elliptic to lanceolate or narrowly oblong-elliptic, 1.9-7 × 0.5-1.6 cm, thickly papery, abaxially paler but not glaucous; laminar glands dots, prominent; abaxial glands absent; main lateral veins 2- or 3-paired, sometimes forming intramarginal vein, tertiary reticulation faint or nearly invisible; base cuneate, apex acute to subacute or rounded-apiculate. Inflorescence 1-flowered, terminal and on short subsidiary branches from up to ca. 6 nodes below; bracts leaflike, bracteoles leaflike to subulate, entire, deciduous. Pedicels 6-12 mm. Flowers ca. 2.5 cm in diam., substellate; buds ovoid, apex acute. Sepals free or nearly so, erect, subequal to unequal, oblong-linear to elliptic or oblanceolate, 5-8 × 1-2(-3) mm, laminar glands mostly lines, margin entire, apex subacute to acute or short acuminate. Petals bright yellow, tinged red, obovate, 1-2 cm × ca. 6 mm, 1.5-2 × as long as sepals; margin entire, eglandular; apiculus obsolete. Stamen fascicles each with ca. 25 stamens, longest 9-10 mm, ca. 0.8 × as long as petals. Ovary ± narrowly ovoid, 2-4 × 0.7-1.3 mm; styles (3.3-)-4-7 mm, 2-2.5 × as long as ovary; stigmatic mass capitate. Capsule narrowly ovoid to cylindrical, 7-9 × 3-4 mm, ca. 2 × as long as sepals. Seeds dark yellowish brown. 0.9-1.1 mm, with long terminal expansion; testa linear-reticulate. Fl. Mar-Jul, fr. Aug-Jan.

• Open limestone rock crevices; 400-900 m. E and N Taiwan (Hualian, Ilan, Taibei).

Two species: Siberia, E Asia, and E North America; two species (one endemic) in China.

35. *Hypericum ascyron* Linnaeus, Sp. Pl. 2: 783. 1753.

黄海棠 *huang hai tang*

Herbs, perennial, 0.5–1.3(–2) m tall, erect or sometimes ascending from short creeping base; stems single or few, caespitose, unbranched or branched above or nearly throughout. Stems 4-angled when young, becoming 4-lined or occasionally internodes 2-lined below. Leaves sessile; blade lanceolate or ± narrowly ovate or oblong or elliptic to oblong-linear or oblanceolate, (3–)4–9.7(–12) × (0.4–)0.7–3.5(–4) cm, thickly papery, abaxially rather paler but not glaucous; laminar glands dense, unequal dots or short streaks; intramarginal glands dense; main lateral veins 4–7-paired, tertiary reticulation dense, often obscure; base cuneate to cordate-amplexicaul, apex acute to subapiculate or obtuse (or lowermost rarely rounded). Inflorescence 1- to ca. 35-flowered from 1–5 nodes, the whole nearly flat-topped to narrowly pyramidal, sometimes with flowering branches from up to 4 nodes below; bracts and bracteoles leaf-like but smaller and often broader, more rarely linear-lanceolate and deciduous. Flowers 3–7(–8) cm in diam., stellate with petals spreading to reflexed; buds broadly to narrowly ovoid, apex rounded to subacute. Sepals free, erect, oblong to elliptic or ovate to ovate-lanceolate or obovate, subequal to unequal, the outer ones sometimes leaflike, (0.3–)0.5–1.5 cm × (1.5–)2–7(–10) mm; laminar glands lines, distally interrupted to streaks; marginal glands spaced, small, margin entire, apex rounded to obtuse or rarely subacuminate to acute; veins 11–17. Petals bright (to ?golden) yellow, sometimes tinged red in bud, obovate or oblong-obovate to oblanceolate, often somewhat spatulate to subunguiculate, strongly curved to nearly straight, 1.4–4.1 × 0.5–2 cm, 2–3 × as long as sepals or shorter when sepals leaflike; laminar glands lines to short streaks; marginal glands absent; margin entire, apex rounded or obtuse to rarely acute to acuminate; apiculus short and rounded or absent. Stamen fascicles (?4 or)5, each with ca. 30 stamens, longest 0.9–2.5 cm, 0.4–0.67 × as long as petals. Ovary broadly ovoid to narrowly ovoid-pyramidal or ellipsoid; styles (4 or)5, 2.5–15 mm, 0.5–2 × as long as ovary, free or up to 0.8 coherent or connate; stigmas broadly capitate to funnel-shaped. Capsule broadly to narrowly ovoid or ovoid-pyramidal or rarely narrowly cylindrical, 0.9–2.2(–3) cm × 5–13 mm, 2–3 × as long as sepals, apex obtuse to rounded. Seeds dark red-brown to yellow-brown, 1–1.5 mm, deeply carinate or narrowly winged, sometimes with slight terminal expansion; testa densely shallowly linear-reticulate. Fl. Jun–Sep, fr. Aug–Oct. $2n = 16, 18, 20, 22$ (usually 18).

Moist to dry meadows, grassy or rocky slopes, sometimes in forests or among scrub, streamsides and river banks; sea level to 2800(–3600) m. Throughout China except Xizang [Japan, Korea, Mongolia, Russia (Altai to Kamchatka and Kurile Islands, Sakhalin), Vietnam; North America (E Canada, NE United States)].

Hypericum ascyron is a highly variable species or species complex with a very wide distribution. Although several variants have been recognized as varieties or even species, the variation appears to be nearly continuous.

The most frequently distinguished taxon has been *Hypericum gebleri*, which most Russian authors have recognized, as it occurs through-

out most of S Siberia along with larger-flowered, less-branched forms and is present alone in Kamchatka, the Kurile Islands, and Sakhalin. On the other hand, Chinese authors have tended to include it in *H. ascyron*, because intermediate forms occur in the north. The North American population, too, was recognized early at species level but none of the characters said to distinguish it appears to be constant.

Under these circumstances, it seems best to distinguish the N Asian *Hypericum gebleri* and the North American *H. pyramidatum* Aiton as subspecies (see Robson, Bull. Nat. Hist. Mus. Lond. (Bot.) 31: 37–88. 2001). It seems impossible to recognize the long-styled (mainly large-flowered and northern) plants and the narrow-fruited, C Chinese ones (respectively var. *longistylum* and var. *giraldii* [var. *hupehense*]) as distinct taxa, as both represent extremes of continuous variation. Likewise, the narrow-leaved, small-flowered form from S China (misidentified as var. *angustifolium* Y. Kimura) merges with more typical forms.

- 1a. Capsule ovoid to ovoid-pyramidal or ovoid-cylindric; sepals 6–13 mm wide, ovate to lanceolate or oblong or elliptic; styles 4–15 mm, 0.7–2 × as long as ovary, nearly free to up to 0.8 united; leaves 7–40 mm wide, base cordate to rounded 35a. subsp. *ascyron*
- 1b. Capsule cylindrical-ellipsoid; sepals 1.5–7 mm wide, narrowly oblong to oblong-lanceolate; styles 2.5–3.5 mm, ca. 1/2 as long as ovary, free; leaves 4–15 mm wide, base usually cuneate 35b. subsp. *gebleri*

35a. *Hypericum ascyron* subsp. *ascyron*

黄海棠(原亚种) *huang hai tang* (yuan ya zhong)

Ascyrum sibiricum Lamarck ex Poir.; *Hypericum ascyron* var. *giraldii* R. Keller; *H. ascyron* var. *hupehense* Pampanini; *H. ascyron* var. *longistylum* Maximowicz; *H. ascyron* var. *multipetalum* R. Keller; *H. ascyron* var. *umbellatum* R. Keller; *H. biondii* R. Keller p.p.; *H. hemsleyanum* H. Léveillé & Vaniot; *H. longifolium* H. Léveillé; *H. scallanii* R. Keller; *Roscyna gmelinii* Spach; *R. japonica* Blume.

Plants 0.5–1.3 m tall. Leaves 4–12 × (0.5–)0.7–4 cm, base usually cordate-amplexicaul. Flowers 4.5–8 cm in diam. Sepals ovate or oblong to elliptic or lanceolate or obovate, 6–10 mm wide, apex rounded to obtuse or rarely apiculate to acute. Styles 4–15 mm, 0.7–2 × as long as ovary, nearly free to 0.8 united. Capsule ovoid to ovoid-pyramidal or ovoid-cylindric.

Throughout China except Xinjiang, Xizang, and parts of the northeast [Japan, Korea, Mongolia, Russia (Altai Mountains eastward except Sakhalin, Kamchatka, and Kurile Islands), ?Vietnam].

35b. *Hypericum ascyron* subsp. *gebleri* (Ledebour) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 57. 2001.

短柱黄海棠 *duan zhu huang hai tang*

Hypericum gebleri Ledebour, Fl. Altaic. 3: 364. 1831; *H. ascyron* var. *brevistylum* Maximowicz; *H. ascyron* var. *macrosepalum* Ledebour; *Roscyna gebleri* (Ledebour) Spach.

Plants 0.5–1 m tall. Leaves 3–6 × 0.4–1.5 cm, base usually cuneate. Flowers 0.45–5 cm in diam. Sepals narrowly oblong or oblong-lanceolate, 1.5–7 mm wide, apex rounded or usually obtuse to acute. Styles 2.5–3.5 mm, ca. 0.5 × as long as ovary, free. Capsule cylindrical-ellipsoid.

Heilongjiang, extreme W Xinjiang [N Korea, Mongolia, Russia (Altai to Kamchatka, Sakhalin, N Kurile Islands)].

36. *Hypericum przewalskii* Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 27: 431. 1881.

突脉金丝桃 tu mai jin si tao

Hypericum biondii R. Keller, p.p.; *H. chinense* Linnaeus var. *minutum* R. Keller; *H. macrosepalum* Rehder; *H. obtusifolium* R. Keller; *H. pedunculatum* R. Keller.

Herbs, perennial, (0.17–)0.3–0.55 m tall, erect or sometimes ascending at base; stems few to numerous, simple or usually branched below inflorescence or throughout. Stems incompletely 4-lined or 2-lined when young, nearly always soon becoming terete. Leaves sessile; blade broadly oblong or oblong-ovate to narrowly oblong or oblong-lanceolate (reduced in size down stem), 2–6.5(–8) × 1–3.2 cm, thickly papery, abaxially rather paler but not glaucous; laminar glands dense, unequal dots or short streaks; intramarginal glands dense; main lateral veins 4–6-paired, with densely reticulate tertiary venation not or scarcely prominent abaxially; base cordate-amplexicaul, apex rounded to shallowly retuse. Inflorescence 1–7-flowered from 1–3 nodes, flat-topped, sometimes with flowering branches from up to 5 nodes below, the whole then narrowly pyramidal to cylindrical; bracts and bracteoles leaflike, ovate, entire, persistent. Flowers 2–4 cm in diam., stellate; buds nar-

rowly ovoid to cylindrical, apex obtuse to rounded. Sepals free or basally united, erect in bud, spreading to deflexed in fruit, subequal to unequal or rarely leaflike, narrowly or broadly oblong or elliptic to lanceolate or ovate-lanceolate or triangular-lanceolate, 8–10 × 2–4 mm, sometimes enlarging to 1.5 cm × 6.5(–8) mm in fruit; laminar glands rather sparse dots, distal and submarginal; marginal glands dense, small, margin undulate, apex rounded to obtuse or rarely short mucronate; veins (5–)7–9. Petals bright yellow, oblong-oblongeolate, 1.2–1.8 cm × 4–8 mm, 1.5–1.8 × as long as sepals; laminar glands lines, sometimes interrupted distally; marginal glands absent; margin entire; apiculus absent. Stamen fascicles each with 15–30 stamens, longest 1–2.4 cm, 0.85–1 × as long as petals. Ovary ovoid; styles 4.5–13 mm, 1–1.8 × as long as ovary, 0.5–0.9 united or appressed (when short); stigmas narrowly capitate. Capsule broadly to narrowly ovoid or subcylindrical, 1.4–2.1 × (0.5–)0.7–1.4 cm, 1–2.1 × as long as sepals, apex obtuse. Seeds dark reddish brown to grayish brown, 1.3–1.5 mm, shallowly carinate, without terminal expansion; testa densely linear-reticulate. Fl. Jun–Aug, fr. Jul–Oct.

• Mountain slopes, river bank thickets, meadows, roadsides; 2100–3400(–4000) m. Gansu, Henan, W Hubei, Qinghai, Shaanxi, Sichuan, N Yunnan.

Hypericum przewalskii is closely related to *H. ascyron*, differing from it essentially by the obtuse to retuse leaf apex and usually 2-lined mature stem internodes. *Hypericum macrosepalum* seems to be aberrant in having more persistently 4-angled internodes, but is otherwise typical of forms with leaflike sepals in fruit. *Hypericum pedunculatum* typically has longer, narrower leaves and is more branched than typical *H. przewalskii*, but there is a complete intergradation between it and the typical form.

4. *Hypericum* sect. *Sampsonia* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 63. 2001.

元宝草组 yuan bao cao zu

Herbs or rarely suffrutices, perennial, glabrous, with dark (black) glands present on leaves, petals, anthers, and usually sepals. Stems terete, eglandular. Leaves perfoliate, entire. Bracts and bracteoles deciduous or persistent, margin entire. Sepals and petals 5; persistent after anthesis, sepals free, entire, petal apiculus absent. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves vesiculate. Seeds not carinate or winged, testa ribbed-scalariform.

Two species: S Japan and China (Taiwan) to India (Meghalaya); one species in China.

37. *Hypericum sampsonii* Hance, J. Bot. 3: 378. 1865.

元宝草 yuan bao cao

Hypericum electrocarpum Maximowicz; *H. esquirolii* H. Léveillé.

Herbs, perennial, 20–80 cm tall, erect from decumbent rooting base; stems single or few, branched above or nearly throughout; branches curved-ascending. Stems terete, eglandular. Leaves in perfoliate pairs; blade broadly or narrowly lanceolate to oblong or oblanceolate, (2–)2.5–7(–8) × (0.7–)1–3.5 cm, thickly papery, abaxially paler, not glaucous; laminar gland dots all pale to mostly black, dense; intramarginal glands black, dense; main lateral veins 4- or 5-paired, tertiary reticulation rather lax; common base somewhat expanded, rounded, apex obtuse to rounded. Inflorescence 20–40-flowered from 2 nodes,

flat-topped; flowering branches from up to 6 nodes below, the whole flat-topped to subpyramidal or cylindrical; uppermost bract pair and bracteoles deciduous, and linear-lanceolate to linear, other bracts persistent, leaflike, margin entire. Flowers 6–10(–15) mm in diam., substellate with cupped base; buds ovoid, apex obtuse. Sepals free, erect, unequal, oblong to oblong-spatulate or linear-oblong, 3–7(–10) × 1–3 mm; laminar glands ± numerous, pale and rarely black, streaks to dots; intramarginal glands black, irregular, or rarely absent, margin entire, apex rounded; veins (3 or)5. Petals bright yellow, elliptic-oblong, 4–8(–13) × 1.5–4(–7) mm; laminar glands pale (very rarely a few black), short streaks to dots; marginal glands black, sessile or subsessile; margin entire or subentire. Stamens 30–42, apparently 3-fascicled, longest (2–)3–4(–6) mm, ca. 1/2 as long as petals. Ovary ovoid to narrowly pyramidal; styles 3, ca. 2 mm, ca. 0.65 × as long as ovary, outcurving. Capsule broadly

ovoid to broadly or narrowly ovoid-pyramidal, 6–9 × 4–5 mm, exceeding sepals; valves with scattered ovoid to ± elongate amber vesicular glands. Seeds orange-brown, ca. 1 mm; testa finely ribbed-scalariform. Fl. May–Jul, fr. Jun–Oct.

Thickets, streamsides, grassy places, roadsides and cultivated margins; 100–1700 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [S Japan, E Myanmar, N Vietnam].

5. *Hypericum* sect. *Elodeoida* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 66. 2001.

挺茎遍地金组 ting jing bian di jin zu

Herbs, perennial, glabrous, with dark (black or reddish) glands present on leaves and anthers and usually on sepals and petals. Stems terete, eglandular. Leaves free, entire. Bracts and bracteoles persistent, entire to gland-fringed, sometimes auriculate. Sepals and petals 5, persistent after anthesis, sepals free, entire to gland-fringed, petals entire to glandular-ciliate, apiculus present or absent. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves longitudinally vittate. Seeds not carinate, testa scalariform-reticulate to foveolate.

Seven species: from SE China to Kashmir; seven species (three endemic) in China.

38. *Hypericum seniawinii* Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 27: 434. 1881 [*“seniawini”*].

密腺小连翘 mi xian xiao lian qiao

Hypericum lateriflorum H. Léveillé; *H. lianzhouense* L. H. Wu & D. P. Yang; *H. lianzhouense* subsp. *guangdongense* L. H. Wu & D. P. Yang.

Herbs, perennial, (0.15–)0.3–0.6(–1.15) m tall, erect from creeping, rooting and sometimes branching base; stems usually single, sometimes branched above, branches virgate to curved-ascending. Stems terete, eglandular. Leaves sessile or with broad “petiole” to 1 mm; blade oblong to oblong-lanceolate, (1.5–)2–5.2 cm × 5–13(–16) mm, thickly papery, abaxially paler and rarely minutely papillose (Guangdong), not or ± densely glaucous; laminar gland dots pale, dense, rather large; intramarginal glands all black or the occasional one pale, dense; main lateral veins 3(or 4)-paired, tertiary reticulation dense; base subcordate-amplexicaul to broadly or narrowly cuneate, apex obtuse to rounded. Inflorescence 5–50-flowered, from 1–3 nodes, dense, nearly flat-topped to broadly pyramidal; flowering branches from up to 9 nodes below (often with a gap of sterile nodes), the whole then cylindrical; bracts and bracteoles ovate to linear-lanceolate, entire or occasionally with basal glandular cilia or rudimentary auricles. Flowers 0.9–1.5(to ca. 2) cm in diam., conic to stellate or recurved; buds ellipsoid, apex acute to obtuse. Sepals free, erect, subequal to equal, oblong-lanceolate to linear-lanceolate, 2.5–5(–7) × 1–2 mm; laminar glands pale, lines to streaks; marginal glands all black or rarely a few pale, in regular or interrupted row, sessile or slightly prominent, margin entire or subentire, apex acute; veins (3 or 5). Petals ?bright yellow, narrowly oblong to narrowly oblanceolate-elliptic, 7–10(–14) × 2–3 mm, 2–3 × as long as sepals; laminar glands pale, streaks to dots, or absent; marginal glands black, distal, sessile or more proximal immersed; margin subentire. Stamens 24 to ca. 55, apparently 3-fascicled, longest 5–12 mm, slightly shorter than petals. Ovary narrowly ovoid, 1.5–3 × 0.7–1.3 mm; styles 3, (2.5–)4–10(–12.5) mm, 1.5–3(–4) × as long as ovary, divaricate-incurved. Capsule ovoid, 5–6 ×

Hance and apparently all succeeding authors placed this species in *Hypericum* sect. *Drosocarpium* Spach on the basis of its vesicular-gland-dotted capsule valves, despite its wide morphological and geographic differences from all species in that mainly SE European section. Disregarding its specialization, *H. sampsonii* and the closely related *H. assamicum* S. N. Biswas from NE India are morphologically a development from *H. przewalskii*. The combination of perfoliate leaf pairs and vesicular-glandular capsule valves is confined to *H.* sect. *Sampsonia*.

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挺茎遍地金组 ting jing bian di jin zu

Herbs, perennial, glabrous, with dark (black or reddish) glands present on leaves and anthers and usually on sepals and petals. Stems terete, eglandular. Leaves free, entire. Bracts and bracteoles persistent, entire to gland-fringed, sometimes auriculate. Sepals and petals 5, persistent after anthesis, sepals free, entire to gland-fringed, petals entire to glandular-ciliate, apiculus present or absent. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves longitudinally vittate. Seeds not carinate, testa scalariform-reticulate to foveolate.

Seven species: from SE China to Kashmir; seven species (three endemic) in China.

38. *Hypericum seniawinii* Maximowicz, Bull. Acad. Imp. Sci. Saint-Petersbourg 27: 434. 1881 [*“seniawini”*].

Slopes, grasslands, roadsides; (100–)500–1600(–2000) m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Sichuan, Zhejiang [N Vietnam].

Hypericum seniawinii and the very closely related *H. hengshanense* appear to be southeastern derivatives of the *H. pedunculatum* form of *H. przewalskii*. *Hypericum seniawinii* differs from *H. hengshanense* in lacking glandular auricles on the leaves but sometimes bears these on the bracts and bracteoles, and the leaves are usually relatively narrower than in that species; but in both species the leaves become markedly narrower toward the south of their respective ranges. *Hypericum lianzhouense* and *H. lianzhouense* var. *guangdongense* fall within the range of variation and area of distribution of *H. seniawinii* in most respects, but the relative style length cited for the species (ca. 4 × as long as the ovary) is longer than that obtained from previous observations.

39. *Hypericum petiolulatum* J. D. Hooker & Thomson ex Dyer in J. D. Hooker, Fl. Brit. India 1: 255. 1874.

短柄小连翘 duan bing xiao lian qiao

Herbs, perennial (? or annual), 1–50 cm, erect or ascending to procumbent or prostrate from creeping and rooting base; stems much branched, branches curved-ascending to spreading or straggling, all or mostly flowering. Stems terete, slender, eglandular. Leaves with petiole 1–7(–10) mm; blade oblong or lanceolate-elliptic to obovate or suborbicular, 0.5–3.5(–5.2) × 0.3–1(–1.7) cm, thickly papery to submembranous, abaxially paler or ± glaucous; laminar gland dots pale, rather large, fairly dense, usually ± prominent, rarely also 1 or 2 black; intramarginal or marginal glands black, ± dense especially distally; main lateral veins 3-paired, tertiary reticulation fine, rather dense; base cuneate to angustate or more rarely rounded to subcordate, apex rounded to rarely obtuse. Inflorescence (1–)5–28-flowered, from 1 or 2 nodes, usually with long (1–)3–7-flowered branches from up to 5 nodes below, the whole narrowly to broadly pyramidal; bracts and bracteoles linear (or lower bracts leaflike), entire or more rarely with scattered black glandular auricles. Flowers 5–8 mm in diam., stellate; buds

ellipsoid, apex obtuse. Sepals free, erect in bud, ± spreading in fruit, equal to unequal, very narrowly oblong-lanceolate or rarely narrowly elliptic-oblong to linear, 2.3–3.2(–3.4) × 0.5–0.9 mm; laminar glands pale or rarely black, lines to dots, variable in size and number; marginal or submarginal glands black or reddish, few (sometimes only apical) or absent; margin entire or occasionally sparsely glandular-ciliate (especially toward base), apex acute or rarely subacute; veins 3. Petals ?bright yellow, narrowly oblong, 3–5.5 × 1–1.2 mm, ca. 1.5 × as long as sepals; laminar glands pale, 1 or 2 dots, or absent; marginal glands 1 or 2 near apex and occasionally elsewhere, sessile or immersed; margin entire. Stamens (9–)17–22, apparently 3-fascicled, longest (2.5–)3–5 mm, 0.7–1 × as long as petals. Ovary ± broadly to narrowly ellipsoid; styles 3(or 4), (0.5–)1–2.5 mm, 0.65–1.3 × as long as ovary, outcurving. Capsule broadly ovoid to orbicular, 3.5–4 × ca. 3.5 mm, exceeding sepals. Seeds yellow-brown, 0.5–0.6 mm; testa densely but shallowly reticulate-scalariform. Fl. Jun–Aug(–Oct), fr. Aug–Nov.

Mountain slopes, thickets, grasslands, grassy slopes, stream banks, cliffs, roadsides, forest margins; (300–)800–3100 m. Fujian, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, SE Xizang, Yunnan [Bhutan, NE India, N Myanmar, Nepal, N Vietnam].

Hypericum petiolulatum is closely related to *H. seniawinii*, of which it appears to be an upland derivative. It has two subspecies: subsp. *yunnanense* is confined to China and adjacent N Vietnam, whereas subsp. *petiolulatum* is distributed from Yunnan, Sichuan, and Xizang along the Himalayan range to Nepal.

Hypericum petiolulatum subsp. *yunnanense* has been confused with smaller-flowered forms of *H. seniawinii* with narrow and/or cuneate-based leaves, but can be distinguished from them by the shorter styles and smaller, broader capsule and usually by the absence or paucity of marginal sepal glands (not in a continuous row).

- 1a. Styles 1–1.5 mm, ca. 0.7 × as long as ovary; leaves broadest at or above middle; inflorescence usually from apical node only 39a. subsp. *petiolulatum*
- 1b. Styles 1.5–2.2 mm, 1–1.3 × as long as ovary; leaves broadest at or below middle; inflorescence from 2 or 3 nodes 39b. subsp. *yunnanense*

39a. *Hypericum petiolulatum* subsp. *petiolulatum*

短柄小连翘(原亚种) duan bing xiao lian qiao (yuan ya zhong)

Hypericum petiolulatum var. *orbiculatum* Franchet; *H. thomsonii* R. Keller.

Stems decumbent to prostrate, branches ± diffuse. Leaf blade oblanceolate to elliptic or orbicular (broadest at or above middle), 0.5–2.5 × 0.4–1.1(–1.5) cm. Inflorescence usually from 1 node. Styles 1–1.5 mm, 0.65–0.75 × as long as ovary.

Mountain slopes, thickets, grasslands; 2100–3000 m. SW Sichuan, SE Xizang, NW Yunnan [Bhutan, NE India, N Myanmar, Nepal].

39b. *Hypericum petiolulatum* subsp. *yunnanense* (Franchet) N. Robson, Blumea 20: 262. 1973 [“1972”].

云南小连翘 yun nan xiao lian qiao

Hypericum yunnanense Franchet, Bull. Soc. Bot. France 33: 437. 1886; *H. centiflorum* H. Léveillé; *H. mairei* H. Léveillé (1912), not H. Léveillé (1915); *H. pseudopetiolum* R. Keller var. *grandiflorum* Pampanini; *H. qinlingense* X. C. Du & Y. Ren.

Stems erect to decumbent, rooting at base, branches curved-ascending. Leaf blade lanceolate or oblong to oblong-lanceolate (broadest at or below middle), 1.5–4 × 0.6–1.6 cm. Inflorescence from 2 or 3 nodes. Styles 1.5–2.2 mm, 1–1.3 × as long as ovary.

Grassy slopes, cliffs, roadsides, forest margins, grasslands; (300–)800–3100 m. Fujian, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Yunnan [N Vietnam].

40. *Hypericum hubeiense* L. H. Wu & D. P. Yang, Acta Phytotax. Sin. 42: 74. 2004.

湖北金丝桃 hu bei jin si tao

Herbs, perennial, erect, 40–50 cm tall; stems ?single, unbranched or branched toward inflorescence. Stems terete, eglandular. Leaves sessile; blade oblong-ovate, 1.5–3.8 × 1–1.6 cm, thickly papery; laminar glands pale; intramarginal glands black, dense; main lateral veins 3–5-paired, tertiary reticulation; base cordate-amplexicaul, without glandular auricles, margin entire, apex rounded. Inflorescence ca. 17-flowered, from 2 nodes, nearly flat-topped; bracts and bracteoles lanceolate, entire. Pedicel 1–6 mm. Flowers ca. 1.8 cm in diam., stellate. Sepals ?free, erect, unequal, narrowly ovate to lanceolate, 4–6.8 × 0.8–1.8 mm, margin entire; laminar glands black, lines to streaks; intramarginal glands black, spaced, median and distal; apex acute to subacute; veins 3. Petals obovate-oblong to narrowly ovate, 8.5–12 × 2.5–3.5 mm, ca. 2 × as long as sepals; laminar glands black, streaks; marginal glands black, sessile or subsessile; margin entire. Stamens 70–90, apparently 3-fascicled, longest 6–9.5 mm, ca. 0.75 × as long as petals. Ovary ovoid, 1.5–3.5 × ca. 1.5 mm; styles 3, suberect, 4.5–6.5 mm, 2–3 × as long as ovary. Capsule ovoid, 5–6 × ca. 4 mm, equaling sepals; valves with numerous longitudinal vittae. Seeds dark brown, 7–8 mm; testa densely scalariform-pitted. Fl. Jul–Aug, fr. Aug–Sep.

- Thickets; ca. 1600 m. Hubei (Badong).

Hypericum hubeiense is morphologically intermediate between *H. seniawinii* and *H. hengshanense*, having entire bracts and longer styles like the former but broader leaves like the latter.

41. *Hypericum hengshanense* W. T. Wang, Bull. Bot. Lab. N. E. Forest. Inst., Harbin 5: 27. 1979.

衡山金丝桃 heng shan jin si tao

Hypericum hengshanense var. *xinlinense* Z. Y. Li.

Herbs, perennial, 0.62–1 m tall, erect from creeping and rooting base; stems ?single, short branched above; branches virgate. Stems terete, eglandular. Leaves sessile; blade oblong-lanceolate to narrowly oblong-elliptic, (1.5–)3–6 × (0.3–)0.7–1.6 cm, thickly papery, abaxially paler but not glaucous; laminar gland dots pale, scattered; intramarginal glands black, ± dense; main lateral veins 2(or 3)-paired, tertiary reticulation dense; base slightly oblique-cuneate or (uppermost) rounded, at least upper with black-glandular-fimbriate auricles, margin

entire or black-glandular-ciliate, apex obtuse. Inflorescence 5- to ca. 18-flowered, from (1 or)2 or 3 nodes, nearly flat-topped to broadly pyramidal; bracts and bracteoles linear-lanceolate to linear, with margin and auricles black-glandular-fimbriate. Pedicel 0.5–3(–6) mm. Flowers 1.5–2.5 cm in diam., stellate; buds ellipsoid, apex obtuse. Sepals free, erect, equal, oblong-lanceolate to linear-oblong, ca. 7×1.5 –2 mm, glandular-ciliate; laminar glands pale, lines to streaks; intramarginal glands black, few, distal or absent; marginal glands on cilia; apex acute; veins 3. Petals ?golden yellow, narrowly oblong, 9 – 15×2.5 –3 mm, ca. $2 \times$ as long as sepals; laminar glands pale, streaks to dots; marginal glands black, sessile or subsessile; margin entire. Stamens 30–35, apparently 3-fascicled, longest 8–15 mm, 0.6 – $0.75 \times$ as long as petals. Ovary ovoid; styles 3, 6–18 mm, 3 – $7 \times$ as long as ovary, divaricate-incurved. Capsule ovoid, 5.5 – 6 (– 9) $\times 3$ – 3.5 (– 4) mm, exceeding sepals. Seeds dark brown, ca. 1 mm; testa densely scalariform-reticulate. Fl. Jul, fr. ? (coll. Dec).

• Slopes, thickets, roadsides; 600–1000 m. Guangdong (Lianshan), Guangxi (“Tong Shan”), Hunan (Heng Shan, Xinning), Jiangxi (Yongxin).

Hypericum hengshanense is closely related to *H. seniawinii*, differing from it by its longer styles, glandular-ciliate sepals, and glandular-auriculate leaves and bracts. The Guangxi populations have small, relatively narrower leaves and smaller flowers.

42. *Hypericum elodeoides* Choisy in Candolle, Prodr. 1: 551. 1824.

挺茎遍地金 ting jing bian di jin

Hypericum napaulense Choisy.

Herbs, perennial, 0.15–0.5(–0.73) m tall, erect (sometimes from creeping and rooting base); stems cespitose, unbranched or rarely branched above; branches virgate. Stems terete, eglandular. Leaves sessile; blade lanceolate or more rarely ovate-lanceolate to oblong-lanceolate or oblong-elliptic to linear, 1 – $5 \times (0.2)$ – 0.4 – 1.2 (– 1.7) cm, thickly papery, abaxially paler but not glaucous; laminar glands pale, dense, large, dots or short streaks; intramarginal glands black, sparse; main lateral veins (2 or)3-paired, tertiary reticulation lax; base cordate-amplexicaul to rounded, the upper usually with glandular-ciliate auricles, margin entire or (upper) glandular-ciliate toward base, apex acute to subacute or more rarely obtuse to rounded. Inflorescence (1–)5- to ca. 30-flowered, from 1(–4) nodes, corymbiform to cylindrical, very rarely with flowering branches from 1 or 2 nodes below; bracts and bracteoles ovate-lanceolate to oblong-lanceolate or linear, with margin and auricles black-glandular-ciliate or very rarely subentire to entire without auricles. Pedicel 3–12 mm. Flowers 1–2 cm in diam., stellate; buds ellipsoid. Sepals free, erect, equal, narrowly elliptic-lanceolate to narrowly oblong-lanceolate, 5 – 9×1 – 1.5 (– 3) mm, glandular-ciliate; laminar glands pale or black, lines or streaks; marginal glands black, on cilia and a few sessile; apex acute; veins 5. Petals golden yellow, oblong-lanceolate to obovate-oblong, 7 – 15×3 – 4 mm; laminar glands black and sometimes a few pale, lines to dots, dense to sparse; marginal glands black, distal, few, sessile; margin entire. Stamens ca. 60, apparently 3-fascicled, longest 6–11 mm, ca. $0.75 \times$ as long as petals. Ovary narrowly ovoid, 2 – 4×1.3 – 1.7 mm;

styles 3, (3–)4–8 mm, ca. $2 \times$ as long as ovary, divaricate, curved-ascending or straight. Capsule ovoid, 5 – 8×4 – 5.5 mm, ca. as long as sepals. Seeds yellow-brown, 0.5–0.6 mm; testa densely scalariform-reticulate. Fl. Jun–Aug, fr. Aug–Oct. $2n = 16, 32$.

Forests, thickets, damp meadows and rice fields, grassy slopes, tracksides; 2100–3000 m. Guangxi, Sichuan, Xizang, Yunnan; also recorded from Fujian, Guangdong, Guizhou, Hubei, Hunan, Jiangxi [Bhutan, N India (W Himalayas, Sikkim), Kashmir, W Myanmar, Nepal].

Hypericum elodeoides is apparently derived from *H. hengshanense*, having shorter leaves and styles than the latter and being in general smaller than it. A reduction trend runs mainly E–W along the Himalayan range to Kashmir, the smaller plants having linear leaves. A separate subspecies with entire leaves, bracts, sepals, and petals, *H. elodeoides* subsp. *wardii* N. Robson, occurs in NE India (Manipur) and W Myanmar.

43. *Hypericum austroyunnanicum* L. H. Wu & D. P. Yang, Acta Phytotax. Sin. 40: 77. 2002.

滇南金丝桃 dian nan jin si tao

Herbs, perennial, erect from short rooting base, ca. 30 cm tall; stems several, not branched below inflorescence. Stems terete, eglandular. Leaves sessile, 3-whorled; blade oblong-lanceolate, 1.5 – 3×0.5 – 1 cm, ?thickly papery; laminar glands pale, dense; intramarginal glands black, sparse; main lateral veins 2- or 3-paired; base subcordate-amplexicaul, asymmetric, the upper with densely glandular-ciliate auricles, margin entire, apex obtuse. Inflorescence 16-flowered, from terminal node, corymbiform-subglobose, with flowering branches from one node below; bracts and bracteoles oblong-lanceolate, with margin and auricles black-glandular-ciliate. Pedicel ca. 5 mm. Flowers ca. 1 cm in diam. Sepals erect, ?subequal, ovate, 3.5 – 5×1 – 2 mm, glandular-ciliate; laminar glands ?pale; marginal glands black, on cilia and a few sessile or submarginal; apex acute; veins 5. Petals oblong, 4 – 5×1 – 2 mm; laminar glands pale; marginal glands black, distal, sessile; margin entire. Stamens 10–13, apparently 3-fascicled, longest 3–4 mm, 0.75 – $0.8 \times$ as long as petals. Ovary 3-loculed, ovoid, ca. 2×1.5 mm; styles 3, outcurving, ca. 1.7 mm, ca. $0.8 \times$ as long as ovary. Capsule ovoid, ca. 4×3 mm, ca. as long as sepals; valves laxly longitudinally vittate. Seeds blackish brown, ca. 0.5 mm; testa linear-pitted. Fl. & fr. Aug.

• Roadsides and dry waste places; 1600–1700 m. W Yunnan.

In most respects *Hypericum austroyunnanicum* falls within the range of variation of *H. elodeoides*; but, discounting the ternate leaves (a character that is rarely species-specific in the genus), the small flowers with ovate sepals and short styles would seem to distinguish it from that species.

44. *Hypericum kingdonii* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 74. 2001.

察隅遍地金 cha yu bian di jin

Hypericum wightianum Wallich ex Wight & Arnott subsp. *axillare* N. Robson.

Herbs, perennial, 15–48 cm tall, suberect to decumbent from short rooting base, with stems usually branched from upper to nearly all nodes. Stems terete, eglandular; internodes

1–2.5 cm, longer than leaves. Leaves sessile, lower soon deciduous; leaf blade broadly ovate-oblong or broadly elliptic to suborbicular, 6–14 × 3–7 mm, recurved, subpapery, abaxially pale or glaucous; laminar glands pale, punctiform, small, dense; intramarginal glands black, dense; main lateral veins 3 or 4 pairs from lower 2/5 of midvein, tertiary reticulation lax or apparently absent; base shallowly cordate to rounded, margin entire, apex rounded. Inflorescence 5–25-flowered from 1 or 2 nodes, usually with flowering branches from up to 6 nodes below and often also toward base of stem, the whole narrowly pyramidal to subcylindric. Pedicel 1–2 mm; bracts and bracteoles narrowly elliptic or linear-lanceolate, black glandular-denticulate to -fimbriate or subentire, with intercalary sessile black glands and ± well-developed black-gland-fringed auricles, persistent. Flowers 8–14 mm in diam., stellate; buds ellipsoid, apex obtuse. Sepals 5, erect in bud and fruit, equal, lanceolate to oblong-linear, 4.5–6 × (1–)1.5–2 mm, margin irregularly glandular-denticulate to -fimbriate or subentire, apex acute to subacu-

minate; veins 3–5, branching; laminar glands pale, linear to punctiform and often a few black, punctiform; marginal or intramarginal glands black, irregular, often between glandular cilia or fimbriae. Petals 5, ?golden yellow, not tinged red in bud, narrowly ovate, 6–8 mm, 1.3–1.5 × as long as sepals, margin entire, apex acute; laminar glands sparse to rather dense, black, striiform to punctiform; marginal glands distal and in apiculus, black. Stamens 20–25, apparently 3-fascicled, longest 5–6 mm, 0.7–0.85 × as long as petals; anther gland black. Ovary 3-loculed, ellipsoid, ca. 2 × 1 mm; styles 3, ca. 3 mm, ca. 1.5 × as long as ovary, ± divergent; stigmas narrow. Capsule narrowly ovoid to ellipsoid, 5–7 × 3.5–4.5 mm, ca. 1.1 × as long as sepals; valves with numerous longitudinal vittae. Seeds yellowish brown, ca. 0.5 mm, not carinate; testa finely scalariform.

Rice paddy embankments, grassy slopes; 1200–2700 m. SE Xizang, NW Yunnan [NE India, N Myanmar].

6. *Hypericum* sect. *Monanthes* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 75. 2001.

单花遍地金组 dan hua bian di jin zu

Herbs, perennial, glabrous, with dark (black or reddish) glands present on leaves, sepals, petals, and anthers. Stems terete or, when thin, 2–4-lined, eglandular or rarely with reddish glands on lines. Leaves free, often gland-fringed, sometimes glandular-auriculate. Bracts and bracteoles entire or gland-fringed, often auriculate. Sepals and petals 4 or 5, persistent after anthesis, sepals free, entire to gland fringed, petals entire or with apical glandular cilium. Stamens apparently 3-fascicled. Styles (2 or)3(or 4), free. Capsule valves longitudinally vittate. Seeds not carinate, testa scalariform-reticulate to foveolate.

Seven species: from SW China to S India and Pakistan; seven species (two endemic) in China.

45. *Hypericum daliense* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 83. 2001.

大理金丝桃 da li jin si tao

Herbs, perennial, 0.15–0.4 m tall, erect from creeping and rooting base; stems single or few, unbranched (?always). Stems 4-angled when young, soon terete or faintly 2-lined, eglandular. Leaves sessile; blade elliptic-oblong to (upper) lanceolate, 2.2–4.5 × 0.7–2.1 cm, thinly papery, abaxially paler, not glaucous; laminar gland dots pale, dense, ± small; intramarginal glands black, dense; main lateral veins 4-paired (lowermost weak), tertiary reticulation rather dense; base rounded-amplexicaul, margin entire, apex rounded. Inflorescence 5–14-flowered, from 1 or 2 nodes, nearly flat-topped, congested; bracts and bracteoles lanceolate to narrowly elliptic, with margin and auricles reddish- to black-glandular-ciliate or rarely subentire with a few intramarginal black glands. Flowers 1–1.5 cm in diam., stellate; buds ellipsoid. Sepals free or nearly so, erect, subequal or equal, lanceolate to narrowly oblong-elliptic, 4.5–6.5 × 1–1.5 mm, glandular-ciliate; laminar glands all pale lines or usually distal part(s) black, streaks or dots; marginal glands reddish or black; apex acute; veins 5, outer pair branched. Petals bright yellow, oblong-obovate, 6–8 × 2.5–3.5 mm; laminar glands absent; marginal glands black, few, subapical, sessile; margin entire. Stamens 25–35, apparently 3-fascicled, longest 5–6 mm, 0.75–0.8 × as long as petals. Ovary ellipsoid; styles 3, 2–2.5 mm, ca. as long as ovary or slightly longer, divaricate. Capsule cylindrical-ellipsoid, ca. 7 × 4.5 mm, slightly exceeding sepals. Seeds not seen. Fl. Jul–Aug, fr. ?

• Open situations among scrub; 2400–3100 m. Yunnan (Dali and Lijiang ranges).

Hypericum daliense resembles a large form of *H. wightianum* (to which it is clearly closely related), differing from that species inter alia in its larger flowers, larger, all sessile and mostly elliptic-oblong leaves (which are all entire, i.e., the upper ones are not basally glandular-fimbriate), and larger, cylindrical-ellipsoid capsule. It provides a morphological link between *H. wightianum* and the *H. macrosepalum* form of *H. przewalskii* from N Yunnan.

46. *Hypericum wightianum* Wallich ex Wight & Arnott, Prodr. Fl. Ind. Orient. 1: 99. 1834.

遍地金 bian di jin

Hypericum bodinieri H. Léveillé & Vaniot; *H. delavayi* R. Keller.

Herbs, perennial or annual, (0.08–)0.13–0.45 m tall, erect to decumbent or procumbent from creeping and rooting base; stems single or few, clustered, branched above or rarely throughout; branches short, spreading-ascending. Stems shallowly 2-lined or terete, eglandular. Leaves sessile to short petiolate (especially lower ones); blade broadly elliptic to obovate or ovate, (0.6–)1–3 × (0.3–)0.5–1.5(–1.9) cm, thinly papery, abaxially paler, not glaucous; laminar glands pale or rarely a few black, dots to streaks, dense, varying in size; intramarginal glands black, dense or irregular; main lateral veins 2- or 3-paired, tertiary reticulation scarcely visible abaxially, dense; base rounded to cordate, margin entire or (upper) sometimes basally or completely reddish- to black-glandular-ciliate and with reddish- to black-glandular-ciliate auricles, apex rounded

[or rarely acute to apiculate-obtuse]. Inflorescence 3- to ca. 50-flowered, from 1 or 2(or 3) nodes, the whole laxly flat-topped or broadly pyramidal to capitate-cylindric or bifurcate; bracts and bracteoles ovate or lanceolate to linear, with black-glandular-ciliate margin and auricles. Flowers 5–8(–11) mm in diam., stellate; buds ellipsoid, apex subacute. Sepals basally united, erect, equal, narrowly to broadly oblong or elliptic, 2.5–5(–6) × 1.5–3 mm, glandular-ciliate to -laciniate [or very rarely entire]; laminar glands all pale or some black, linear to punctiform, scattered; marginal glands reddish to black, the cilia sometimes alternating with intramarginal black gland dots, or very rarely all intramarginal; apex acute to obtuse; veins 3(–5). Petals bright yellow, elliptic-oblong, 3–5 × 1.2–1.6 mm, 1–1.2 × as long as sepals; laminar glands absent; marginal glands black, few, distal and subapical, sessile; margin entire or apically glandular-ciliate. Stamens 7–11, apparently 3-fascicled, longest 2.5–4 mm, 0.8–0.9 × as long as petals. Ovary ovoid to globose; styles 3, 1.5–2.5 mm, 0.9–1 × as long as ovary, divaricate. Capsule broadly ovoid to subglobose, 3–4.5(–6) × 3–4 mm, ca. as long as sepals or slightly longer. Seeds brown, ca. 0.5 mm; testa finely scalariform. Fl. Apr–Jul, fr. Jul–Sep.

Grassy slopes, open woodlands, streamsides, roadsides and rice paddy terraces; 700–3300 m. Guangxi, Guizhou, Sichuan, Xizang, Yunnan [Bhutan, India (NE and Tamil Nadu), N Laos, N Myanmar, Sri Lanka, N Thailand].

Hypericum wightianum is clearly closely related to *H. daliense* and has apparently spread from SE China westward to NE India and southwest to W Myanmar and Mizoram, NE India. It then reappears in the S Indian hills and in Sri Lanka. The variation is continuous.

47. *Hypericum trigonum* Handel-Mazzetti, Symb. Sin. 7: 403. 1931.

三棱遍地金 san leng bian di jin

Herbs, perennial, 0.25–0.4 m tall, erect from short creeping and rooting base; stems unbranched below inflorescence or with slender ascending or spreading branches from up to ca. 5 upper nodes. Stems terete, eglandular. Leaves sessile, lower not smaller but ascending and soon deciduous; blade oblong or oblong-ovate to triangular-ovate, 2–3 × 0.9–1.5 cm, subpapery, abaxially paler, not glaucous; laminar glands dots all pale and very small or all black; intramarginal glands black, sparse; main lateral veins 4-paired, tertiary reticulation dense; base broadly cuneate to shallowly cordate, margin entire, apex rounded to obtuse. Inflorescence 4- to ca. 15-flowered from apical node; flowering branches from up to 4 nodes below, the whole flat-topped to cylindric; bracts and bracteoles narrowly lanceolate to linear, with black-glandular cilia and auricles. Flowers 1.5 to ca. 2.5 cm in diam., stellate or reflexed; buds cylindric, apex rounded. Sepals free, erect, equal, narrowly oblong to elliptic-oblong or lanceolate, 6–7 × 1.5–2 mm, glandular-ciliate; laminar glands all pale or parts black, lines, sometimes interrupted; marginal glands black; apex acute; veins 5. Petals golden yellow, narrowly oblong-elliptic to lanceolate-elliptic, 0.9–1.1 cm × 2.5–4.5 mm, 1.5(–?2) × as long as sepals; marginal gland black, apical, solitary; laminar glands few, pale, lines and sometimes black, 1–3 dots, subapical; margin entire. Stamens 25–35, apparently 3-fascicled, longest 7–9 mm, 0.75–

0.8 × as long as petals. Ovary narrowly ovoid-ellipsoid; styles 3, 4–5 mm, ca. as long as ovary, divergent. Capsule broadly ovoid, 7–8 × ca. 4.5 mm, ca. 2 × as long as sepals. Seeds dark yellowish brown, ca. 0.6 mm; testa shallowly scalariform-foveolate. Fl. Jun–Aug, fr. Aug–?

?Marshes and wet meadows; 2900–3600 m. SE Xizang, NW Yunnan [Myanmar (extreme N Kachin)].

The *Hypericum trigonum* group contains variable taxa that are sometimes difficult to separate specifically. The group comprises *H. trigonum* (SE Xizang, NW Yunnan, and N Myanmar), *H. ludlowii* (SE Xizang, adjacent NW Yunnan, and Bhutan), and *H. himalaicum* (Pakistan to NW Yunnan and SW Sichuan). *Hypericum trigonum* is basic to the group, being closely allied to *H. monanthemum*, and the other taxa are both derived individually from it. Despite the existence of some morphologically intermediate populations, it seems best to recognize the above three species. Li Xiwen (in FRPS 50(2): 54. 1990) included *H. trigonum* and *H. himalaicum* (in part, as *H. monanthemum* var. *brachypetalum*) in *H. monanthemum* and apparently placed *H. ludlowii* (without citation) in the remaining part of *H. himalaicum*.

48. *Hypericum ludlowii* N. Robson, Notes Roy. Bot. Gard. Edinburgh 41: 133. 1983.

滇藏遍地金 dian zang bian di jin

Herbs, perennial, 0.03–0.25(–0.4) m tall or long, erect or ascending from creeping and rooting base; stems solitary, slender, growing through other vegetation, unbranched or with short branches from upper or occasionally several nodes. Stems 2–4-lined, eglandular. Leaves with petiole 0.5–1 mm; blade triangular-ovate or elliptic to oblong-oblong-ovate, 0.3–2 cm × 1.5–10 mm, subpapery, abaxially paler, not glaucous; laminar gland dots pale, very small, dense to sparse; intramarginal glands all black or black and pale or reddish, rather dense to spaced, sometimes very small; main lateral veins (2 or)3-paired, tertiary reticulation dense; base rounded to rarely cuneate, margin entire, apex rounded. Inflorescence 1–9-flowered from 1 or 2 nodes, nearly flat-topped or broadly pyramidal to cylindric or bifurcate, sometimes with flowering branches from up to 4 nodes below; bracts and bracteoles narrowly oblong and black- or red-glandular-ciliate and -auriculate or reduced leaflike and entire and without auricles. Flowers (0.6–)0.9–1.1(–1.5) cm in diam., stellate; buds cylindric-ellipsoid, apex subacute. Sepals free, erect, subequal to unequal, narrowly oblong or narrowly elliptic to lanceolate, 1.5–5 × 0.5–1.5 mm; laminar glands all pale or partly black, lines; marginal glands black or reddish, sometimes few; margin glandular-ciliate to entire, apex obtuse to acute; veins 5. Petals golden yellow, oblong-oblong-ovate, 4–7 × 1–2.5 mm, (1.3–)1.5 × as long as sepals; marginal glands black or reddish, solitary, apical, and sometimes a few black, subapical, sessile; laminar glands absent or rarely 1 or 2 black streaks; margin entire or subentire. Stamens ca. 20, apparently 3-fascicled, longest 4–5 mm, 0.6–1 × as long as petals. Ovary ellipsoid to subglobose; styles 3, 2–2.5 mm, 1–1.4 × as long as ovary, divergent. Capsule cylindric-ellipsoid to ellipsoid-subglobose, 4.5–6 × 2.5–3.5 mm, ca. 2 × as long as sepals. Seeds straw-colored, ca. 0.4 mm; testa foveolate-scalariform. Fl. Jul, fr. Jul–Aug.

Grassy swamps, streambanks and bogs; 2800–3400(–3600) m. SE Xizang, NW Yunnan (Weixi) [Bhutan (Bumthang)].

Hypericum ludlowii shows a reduction trend westward from Yunnan to Bhutan. The easternmost populations are rather similar to the "intermediate" population of *H. trigonum* in SE Xizang and N Myanmar, but differ in the smaller overall size and delicate habit and in the size of the leaves and floral parts, as well as in the absence, in the more reduced forms, of black glands (except in the anthers). The upper leaves in this easternmost population, however, appear trigonous as in typical *H. trigonum*. It differs from *H. himalaicum* in the relatively longer styles and narrower, apically acute sepals that are not black-streaked; and it is usually distinct in the smaller flowers, shorter ascending stems, and boggy habitat. The styles are not absolutely shorter, but the smaller ovary makes them relatively so.

49. *Hypericum himalaicum* N. Robson, J. Jap. Bot. 52: 287. 1977.

西藏金丝桃 xi zang jin si tao

Hypericum monanthemum J. D. Hooker & Thomson ex Dyer var. *brachypetalum* Franchet.

Herbs, perennial, 0.05–0.35 m tall or long, decumbent from creeping and rooting base; stems solitary or clustered, often branched below inflorescence or lower; branches slender, spreading. Stems terete or 2–4(–6)-lined, eglandular or occasionally with few reddish glands on lines. Leaves sessile or to 2 mm petiolate; blade ovate to oblong or elliptic to obovate or oblanceolate, 0.4–2.4 × 0.2–1.7 cm, subpapery, abaxially paler or usually glaucous; laminar gland dots pale, small to medium, dense; intramarginal glands black or rarely pale, dense to spaced; main lateral veins 2–4-paired, tertiary reticulation dense; base cordate to rounded or cuneate, the upper often with black-glandular-ciliate auricles and sometimes also glandular-ciliate proximal margin, margin entire, apex rounded. Inflorescence 1–12-flowered, from 1(or 2) nodes, often with flowering branches from up to 4 nodes below, the whole nearly flat-topped; bracts and bracteoles narrowly elliptic or linear-lanceolate to linear, black-glandular-ciliate and -auriculate or more rarely entire and then either bracteose or reduced leaflike. Flowers 1–2 cm in diam., stellate; buds ovoid to broadly ellipsoid, apex obtuse to acute. Sepals free, erect, equal to subequal, ovate-lanceolate or elliptic to linear-lanceolate, 3.5–7 × 1–2.5 mm; laminar glands pale or often partly black, lines (with the black parts dots to usually streaks) to dots; marginal glands black, on cilia or sessile or absent, margin glandular-ciliate to entire, apex subacute to acute or rarely rounded; veins 5. Petals bright yellow, sometimes tinged red in bud, oblong-elliptic to oblanceolate, 6–10 × 2–4 mm, 1.2–2 × as long as sepals; laminar glands black streaks or absent; marginal glands absent or 1–4, black, apical and subapical, sessile or on apical cilium; margin entire or rarely with one apical glandular cilium. Stamens 12–30, apparently 3-fascicled, longest 4–7 mm, 0.65–0.85 × as long as petals. Ovary ovoid to ellipsoid; styles 3(or 4), 2–3 mm, 0.65–1(–?1.3) × as long as ovary, divergent. Capsule ± broadly ellipsoid, 3–9 × 2.5–6 mm, 1.5–2 × as long as sepals. Seeds yellowish brown, 0.5–0.6 mm; testa densely scalariform-foveolate. Fl. Jun–Aug, fr. Aug–Oct.

Forest and woodland clearings, alpine meadows, rocky or grassy slopes, often in damp places; 2500–3300 m. SW Sichuan, SE Xizang, NW Yunnan [E Bhutan, N India, Nepal, Pakistan].

The specimens of *Hypericum himalaicum* that most closely resemble *H. trigonum*, especially the intermediate population of that

species from SE Xizang and N Myanmar, are found in C Nepal. The Chinese populations represent an eastward reduction trend from there that penetrates into Xizang through the Yadong (Chomo) gap and continues to NW Yunnan and north into Sichuan, where it has been known as *H. monanthemum* var. *brachypetalum* and where the sepals are sometimes apically entire and rounded.

50. *Hypericum monanthemum* J. D. Hooker & Thomson ex Dyer in J. D. Hooker, Fl. Brit. India 1: 256. 1874.

单花遍地金 dan hua bian di jin

Herbs, perennial, (0.05–)0.1–0.4 m tall or long, erect or decumbent to prostrate from creeping, rooting and branching base; stems scattered or clustered or often carpeting, often slender, unbranched above or rarely with one pair of ascending branches below inflorescence. Stems terete or 2(–4)-lined, eglandular. Leaves sessile (uppermost or very rarely all) or to 1 mm petiolate, lower smaller, erect to appressed, soon deciduous; blade broadly ovate or circular to broadly oblong or broadly elliptic or obovate-spatulate, 0.4–2.5(–3.5) × 0.2–1.5(–2.5) cm; subpapery to submembranous, abaxially paler or slightly glaucous; laminar gland dots all pale and very small or some or all black, rather dense to sparse or absent; intramarginal glands black and dense or reddish to pale and rather sparse; main lateral veins 3(or 4)-paired, tertiary reticulation dense; base rounded to truncate or subcordate or (lower) cuneate, margin entire, apex rounded or retuse to obtuse. Inflorescence 1–5(–7)-flowered, from 1(or 2) nodes, subumbelliform or bifurcate; bracts leaflike, the pair usually wider than inflorescence, entire; bracteoles narrowly ovate to lanceolate, with black-glandular-ciliate margin and auricles. Flowers (0.6–)1–2.5 cm in diam., stellate or reflexed; buds narrowly ovoid, obtuse. Sepals 5 subequal or 4 in unequal pairs, free, erect, oblong or elliptic to narrowly ovate or linear-lanceolate, 2.5–7 × 1–3 mm; laminar glands all pale or parts or all black, linear; marginal glands black or reddish to pale; margin glandular-ciliate to entire, apex obtuse (rarely acute) to rounded; veins 5–7. Petals 4 or 5, golden yellow, lanceolate-oblong to narrowly ovate, (0.3–)0.5–1.5 cm × 1–4.5 mm, 1–2 × as long as sepals; apical gland reddish, other marginal glands absent; laminar glands pale or black, few, lines to streaks, or absent; margin entire. Stamens 10–45, apparently 3-fascicled, longest 4–9 mm, 0.6–0.8 × as long as petals. Ovary ovoid to subglobose, 2–5 × 1.5–2.5 mm; styles (2 or)3(or 4), 1.5–3 mm, 0.5–1 × as long as ovary, divergent. Capsule broadly ovoid to globose, (5–)6–8 × (3–)4–6 mm, ca. 1.5 × as long as sepals. Seeds yellowish brown, 0.7–0.8 mm; testa shallowly foveolate. Fl. Jun–Aug, fr. Aug–Oct.

Clearings in forests and bamboo forests, thickets, grassy or stony slopes, streamsides, rock crevices; 2900–3900 m. W Sichuan, SE Xizang, Yunnan [Bhutan, NE India, N Myanmar, Nepal].

A detailed study has revealed not only that *Ascyrum filicaule* is a *Hypericum*, but that it is only with difficulty separable from *H. monanthemum*. This species displays a western reduction trend from China to Nepal, while the reduction trend in *A. filicaule* goes in the reverse direction, from Nepal and NE India (Sikkim) to Yunnan and Myanmar. In Nepal, NE India (Sikkim), and Bhutan there is an area of morphological overlap, where some specimens have perianth states intermediate between 5-merous and 4-merous. It therefore seems appropriate to treat these taxa as subspecies.

- 1a. Sepals and petals 5; sepals subequal, glandular-ciliate to subentire; flowers 12–25 mm in diam.; leaves 10–35 mm 50a. subsp. *monanthemum*
- 1b. Sepals and petals 4; sepals in unequal pairs, often leaflike, entire; flowers 6–12 mm in diam.; leaves mostly 5–10 mm 50b. subsp. *filicaule*

50a. *Hypericum monanthemum* subsp. *monanthemum*

单花遍地金(原亚种) dan hua bian di jin (yuan ya zhong)

Hypericum bachii H. Léveillé; *H. mairei* H. Léveillé (1915), not H. Léveillé (1912); *H. monanthemum* var. *nigropunctatum* Franchet.

Plants erect. Stems terete. Leaves sessile or subsessile, 10–25(–35) × 8–15(–25) mm, never scalelike, subpapery, abaxially sometimes slightly glaucous, inframarginal glands black, base rounded to broadly cuneate. Inflorescence 1–5(–7)-flowered. Pedicels 1–2.5 mm. Flowers 12–25 mm in diam. Sepals 5, subequal, 4–7 × 1.5–3 mm, margin glandular-ciliate to subentire. Petals 5, 8–15 mm × 2.5–4.5 mm, ca. 2 × as long as sepals. Stamens 20–45. Styles 0.6–1 × as long as ovary.

Clearings in forests and bamboo forests, grassy slopes, stream-sides; 2900–3900 m. W Sichuan, SE Xizang, Yunnan [Bhutan, NE India (Sikkim), N Myanmar (Kachin), Nepal].

50b. *Hypericum monanthemum* subsp. *filicaule* (Dyer) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 78. 2001.

纤茎遍地金 xian jing bian di jin

Ascyrum filicaule Dyer in J. D. Hooker, Fl. Brit. India 1: 252. 1874; *Hypericum filicaule* (Dyer) N. Robson.

Plants erect to decumbent or prostrate and ± mat-forming; stems unbranched above or (in Yunnan) branched from upper 2 or 3 nodes. Stems terete or narrowly 2-lined. Leaves (except uppermost, sessile) to 1 mm petiolate, (4–)5–10(–15) × 2–8(–11) mm, broadly elliptic, lower gradually smaller, sometimes becoming minute and scalelike, thinly papery to membranous, abaxially paler, inframarginal glands reddish or pale, base cuneate to rounded-attenuate. Inflorescence 1-flowered. Pedicels (terminal) 0.5–1.5 mm. Flowers 6–12 mm in diam. Sepals 4, sometimes leaflike, outer 4–12 × 1.5–7 mm, inner 3–7 × 1–3 mm, margin entire, apex obtuse. Petals 4, 3–8 × 1–2.7 mm, 0.75–1.6 × as long as sepals. Stamens 10–20. Styles 0.5–0.8 × as long as ovary.

Rock crevices, grassy slopes; 3000–3900 m. SE Xizang, NW Yunnan [NE India, N Myanmar (Kachin), Nepal].

51. *Hypericum subcordatum* (R. Keller) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 31: 78. 2001.

川陕遍地金 chuan shan bian di jin

Hypericum thomsonii var. *subcordatum* R. Keller, Bot. Jahrb. Syst. 33: 553. 1904; *H. petiolulatum* var. *subcordatum* (R. Keller) H. Léveillé.

Herbs, perennial, 1–7 cm tall, erect from creeping and rooting base with stems unbranched or branched from upper 1(or 2) nodes. Stems with internodes 2-lined above, terete below, eglandular, slender. Leaves 1–1.5 mm petiolate; blade broadly elliptic or oblong-elliptic to obovate, 1–1.6 × 0.8–1.2 cm; thinly papery, abaxially paler (?or subglaucous); laminar gland dots pale, dense, small, or sometimes a few black, scattered; intramarginal glands black, dense or subirregular; main lateral veins 3-paired, tertiary reticulation rather dense, obscure; base cuneate to truncate or (uppermost) subcordate, margin entire, apex rounded. Inflorescence (1–)3–5-flowered, occasionally with branches from 1(or 2) nodes below, the whole flat-topped or bifurcating to subcylindric; bracts and bracteoles leaflike, margin entire. Flowers (0.8–)1–1.2 cm in diam., stellate; buds ?ellipsoid. Sepals free, erect in ?bud and fruit, oblong-lanceolate to lanceolate, subequal, 3–4.5 × 0.8–1.2 mm; laminar glands black, lines to (distally) dots; marginal glands black, few, sessile or submarginal, all or most distal; margin entire, apex acute; veins 5. Petals ?golden yellow, narrowly elliptic, 4.5–6 × 1–1.5 mm, 1.35–1.5 × as long as sepals; laminar glands black, few, lines to streaks; marginal glands black, few, subapical or absent; margin entire. Stamens 17–20, apparently 3-fascicled, longest 4–5.5 mm, ca. 0.9 × as long as petals. Ovary ellipsoid; styles 3(or 4), 1.7–2 mm, 0.85–1 × as long as ovary, divaricate-ascending. Capsule ovoid to subglobose, 4.8–6 × 3.5–4 mm, 1.5–2 × as long as sepals. Seeds yellow-brown, ca. 0.6 mm; testa finely scalariform. Fl. Jun–Aug, fr. Jul–Sep.

- No habitat details known; 1800–2900 m. Shaanxi, Sichuan.

Hypericum subcordatum is very closely related to *H. monanthemum* subsp. *monanthemum* and resembles a small, delicate form of *H. monanthemum* var. *nigropunctatum* with leaves all petiolate and sepals apically acute and entire, characters that do not occur in combination in *H. monanthemum* itself. Along with the occurrence of both taxa on Emei Shan (Sichuan), where they remain distinct, these differences would appear to justify its separation as a species.

7. *Hypericum* sect. *Hypericum*

贯叶连翘组 guan ye lian qiao zu

Herbs, perennial, glabrous, with dark (black) glands present on leaves, sepals, petals, anthers, and sometimes stems. Stems 2–4-lined or terete, glandular or eglandular. Leaves free, entire. Bracts and bracteoles persistent, entire. Sepals and petals 5, persistent after anthesis, sepals free, entire to gland-fringed, petals entire to distally crenate, apiculus obscure or absent. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves longitudinally vittate to abaxially vittate with lateral vesicles. Seeds not carinate, testa finely reticulate to linear-foveolate.

Forty-three species: N temperate zone from Macaronesia east to Guatemala; six species (two endemic) in China.

52. *Hypericum faberi* R. Keller in Engler & Prantl, Nat. Pflanzenfam., ed. 2, 21: 179 in clav. 1925.

扬子小连翘 yang zi xiao lian qiao

Herbs, perennial, 20–60(–80) cm tall, geniculate (or rarely suberect) to procumbent from creeping, branching and rooting base; stems solitary or few, unbranched below inflorescence to branched from most nodes. Stems terete, eglandular. Leaves with petiole (0.5–)1–1.5(–3) mm; blade ovate-oblong to oblong, 1–3 cm × 5–11 mm; thickly papery, abaxially paler or glaucous; laminar glands absent or more rarely few or scattered dots, pale and rarely black, large; intramarginal glands rather dense, black; main lateral veins 2- or 3-paired, tertiary reticulation rather lax and abaxially often scarcely visible; base rather broadly cuneate to rounded, margin entire, plane or slightly incurved, apex rounded. Inflorescence (1–)5–7(–11)-flowered, from 1 or 2(or 3) nodes, sometimes with branches from up to 9 nodes below, the whole nearly flat-topped to pyramidal or condensed-cylindric; bracts and bracteoles linear or linear-lanceolate, margin entire, with spaced marginal black glands. Flowers 5–10 mm in diam., substellate; buds ellipsoid, apex obtuse. Sepals free, erect, oblong or elliptic-oblong to obovate-oblong, subequal to unequal, (3.5–)4–5 × 1–2 mm; laminar glands pale or black, streaks to dots; marginal glands black, spaced, submarginal, rather large; margin entire, apex rounded to apiculate-obtuse or rarely acute; veins 5. Petals ?bright yellow, obovate-oblong, 5–7 × 1.5–3 mm, 1.2–1.5 × as long as sepals; laminar glands absent; marginal glands black, few, near apex only; margin entire. Stamens 24–30, apparently 3-fascicled, longest 4–6 mm, 0.8–0.9 × as long as petals. Ovary ovoid; styles 3(or 4), 2–3(–5.5) mm, 1–1.5(–2.5) × as long as ovary, divaricate. Capsule broadly ovoid, 5–7 × 3.5–4.5 mm, 1.5–2 × as long as sepals. Seeds yellow-brown, 0.5–0.6 mm; testa shallowly linear-foveolate. Fl. Jun–Aug, fr. Aug–Oct.

• Grassy places and thickets on mountain slopes, along roadsides and in rice fields; (200–)500–2700 m. Anhui, Fujian, Gansu, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shanxi, Sichuan, Yunnan, Zhejiang.

Hypericum faberi appears to be related to the “*decorum*” form of the Japanese *H. senanense* Maximowicz, the Fanjing Shan (Guizhou) population being most similar to it. It is easy to confuse with *H. petiolulatum* subsp. *yunnanense*, which differs from it by (1) the densely gland-dotted leaves that vary from oblong to lanceolate, (2) the upper leaves sometimes with glandular auricles, (3) the acute sepals with few or no marginal glands that are sometimes on cilia, and (4) the usually shorter styles (1.5–2.2 mm) and smaller, broader capsule.

53. *Hypericum enshiense* L. H. Wu & F. S. Wang, Acta Phytotax. Sin. 42: 76. 2004.

恩施金丝桃 en shi jin si tao

Herbs, perennial, erect to decumbent from branching base, 14–40 cm tall; stems branching from most nodes. Stems terete, eglandular. Leaves with petiole 0.5–2.5 mm; blade oblong to obovate, 1–3.8 × 0.5–1.3 cm, ?thickly papery, abaxially greenish and densely minutely papillose; laminar glands black and occasionally pale; intramarginal glands rather dense, black; main lateral veins 3-paired; base narrowly cuneate to angustate, margin entire, apex rounded to ?obtuse. Inflorescence 3-flowered,

terminal, with ?flowering branches from 5 (?or more) nodes below, the whole narrowly pyramidal; bracts and bracteoles leaflike. Flowers 1.2–1.5 cm in diam., stellate. Sepals free, erect, narrowly ovate to lanceolate, unequal, 4–6 × 0.8–1.6 mm; laminar glands black, lines to streaks; marginal glands black, spaced; margin entire, apex acute; veins 3. Petals oblong, 6–9 × 1.5–2.5 mm, ca. 1.5 × as long as sepals; laminar glands few, black, lines; marginal glands black, few, near apex only; margin entire. Stamens 50–60, apparently 3-fascicled, longest 4–7 mm, ca. 0.7 × as long as petals. Ovary ovoid, 2–3 × ca. 1.5 mm; styles 3, divaricate, 2.5–3.5 mm, ca. 1.2 × as long as ovary. Capsule ovoid, 4–6 × 3–4 mm, equaling sepals. Seeds dark brown, ca. 0.8 mm; testa linear-pitted. Fl. Jul–Aug, fr. Aug–Sep.

• Forest and field margins, roadsides; 1000–1300 m. Hubei (Badong).

Hypericum enshiense appears to be related to *H. faberi*. It has an overall resemblance to that species, differing from it in the black-gland-dotted, minutely papillose leaves, leaflike bracts, and larger flowers with apically acute sepals and black-glandular-lined petals.

54. *Hypericum taihezanense* Sasaki ex S. Suzuki, Trans. Nat. Hist. Soc. Taiwan 20: 239. 1930.

台粤小连翘 tai yue xiao lian qiao

Hypericum pseudopetiolum R. Keller var. *taihezanense* (Sasaki ex S. Suzuki) Y. Kimura.

Herbs, perennial, 15–40 cm tall, ascending from creeping and rooting base; stems ± cespitose, branched above. Stems terete, eglandular. Leaves sessile or with petiole to 0.7 mm; blade triangular-lanceolate or ovate to obovate, 0.4–1.7(–2) cm × 2–6(–10) mm; ± thinly papery, abaxially paler or glaucous; laminar gland dots pale only, dense, varying in size; intramarginal glands black, rather dense; main lateral veins 3- or 4-paired, tertiary reticulation rather dense, often marked; base cordate-amplexicaul to cuneate, margin entire and plane, apex rounded. Inflorescence 1- to ca. 10-flowered, from 1 or 2 nodes; flowering branches from up to 2 nodes below, the whole laxly flat-topped to cylindric; bracts and bracteoles reduced leaflike, margin entire. Flowers 5–10 mm in diam., concave; buds ellipsoid, apex obtuse. Sepals free, erect in bud, ascending in fruit, subequal to unequal, lanceolate to narrowly oblong or linear, 3–5.5 × 1–1.5 mm; laminar glands all pale, streaks and dots; intramarginal glands black or those toward base pale, regular, ± dense; margin entire, apex obtuse to rounded; veins 3–5. Petals mid-yellow, obovate-oblong to narrowly obovate, (3–)5–6(–8) × (1–)2–3.5 mm, (0.7–)1.2–2 × as long as sepals; laminar glands pale, few, dots or streaks, distal, or absent; marginal glands black, sessile or on cilia; margin with sessile or stalked glands near apex or around upper half (sometimes few). Stamens ca. 30, apparently 3-fascicled, longest ca. 4 mm, 0.8–0.9 × as long as petals. Ovary broadly ovoid; styles 3, ca. 1.5 mm, ca. 0.5 × as long as ovary, divergent to ascending. Capsule broadly ovoid to subglobose, 4–5(–6.5) × 4–4.5 mm, 0.8–1.2 × as long as sepals. Seeds dark brown, 0.5–0.6 mm; testa finely scalariform-foveolate. Fl. Apr–Jul(–Aug), fr. (Jun–)Jul–Sep.

Forest margins, mountain slopes, grassy places, open ground, roadsides; 1000–3000 m. Guangdong, Taiwan (except extreme south) [Indonesia (Sumatra), Malaysia (Sabah), Philippines (Luzon)].

In Fl. Taiwan (2: 640. 1976), *Hypericum taihezanense* was included in *H. pseudopetiolum* R. Keller because its variation fell within the range of variation of that species in Japan. The work of T. Kato on the *H. pseudopetiolum* group, however, has clarified the situation in Japan, and the Taiwanese population, with its entire sepals and broadly ovoid to subglobose capsule, seems to be a distinct southern species related to the Japanese *H. kiusianum* Koidzumi.

55. *Hypericum erectum* Thunberg in Murray, Syst. Veg., ed. 14, 702. 1784.

小连翘 xiao lian qiao

Hypericum erectum f. *angustifolium* (Y. Kimura) Y. Kimura; *Hypericum erectum* var. *angustifolium* Y. Kimura; *H. erectum* subsp. *longisepalum* L. H. Wu & D. P. Yang; *H. taisanense* Hayata.

Herbs, perennial, 30–70 cm tall, erect or ascending from branching and rooting base; stems solitary or few, unbranched below inflorescence or sometimes branched above. Stems terete, eglandular. Leaves sessile; blade narrowly triangular-ovate to narrowly elliptic, 1.5–5 × 0.8–1.3 cm; thickly papery, abaxially paler; laminar glands black [and sometimes pale], ± numerous, small; intramarginal glands black, dense; main lateral veins 3- or 4-paired, tertiary reticulation rather dense; base cordate-amplexicaul, margin entire, plane or incurved, apex obtuse to rounded. Inflorescence (1 or) 3- to many-flowered, from 1–3 nodes, often with flowering branches from up to 6 nodes below, the whole flat-topped to cylindrical; bracts and bracteoles reduced leaflike, margin entire. Flowers ca. 1.5 cm in diam., substellate; buds narrowly ellipsoid, apex acute. Sepals free, erect, ovate-lanceolate [to oblong-elliptic], subequal to unequal, ca. 2.5[–7] × 1[–3] mm; laminar glands black, streaks and dots; intramarginal glands black, [rather dense to] sparse or absent; margin entire [to irregularly glandular-ciliate], apex obtuse to acute; veins 5. Petals bright yellow, obovate to oblong, [6–]7–9[–10] × [2–]2.5 mm, 2.5–3 × as long as sepals; laminar glands black, streaks, distal; marginal glands black, intramarginal to prominent, irregular; margin entire [or with scattered prominent glands]. Stamens 25–30[–40], apparently 3-fascicled, longest 5–7 [6–7] mm, ca. 0.7 × as long as petals. Ovary ovoid; styles 3, 2.5–3 mm, 0.8–1[–1.2] × as long as ovary, widely spreading. Capsule ovoid, ca. 1 cm × 4 [5–11 × 3.5–6] mm, [1.2–]2–2.5 × as long as sepals. Seeds yellow-brown, 0.7–1 mm; testa finely reticulate. Fl. Jul–Aug, fr. Aug–Sep. $2n = 16$.

Grassy slopes; 400–2300 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Sichuan, Taiwan, Zhejiang [Japan (including Ryukyu Islands), Korea (Cheju-do), Russia (Sakhalin)].

In China, *Hypericum erectum* can always be recognized by the sessile leaves with black gland dots only. The described variation of *H. erectum* subsp. *longisepalum* falls within that of this very variable species as a whole; and it was not possible for us to see the diagnostic characters in a color image of a living specimen. This subspecies has therefore been tentatively included in the synonymy of *H. erectum*.

56. *Hypericum attenuatum* C. E. C. Fischer ex Choisy, Prodr. Monogr. Hypéric. 47. 1821.

赶山鞭 gan shan bian

Herbs, perennial, 10–45(–70) cm tall, erect from root-

stock or creeping rhizomatous base; stems numerous to few, cespitose, much branched. Stems 2-lined, with black glandular dots and streaks on lines and often sparsely (reddish or black) elsewhere. Leaves sessile; blade elliptic to oblong or oblanceolate or rarely ovate, (0.8–)1.5–3.1(–3.8) cm × (3–)5–12(–15) mm; thickly papery, abaxially paler; laminar glands dots, small, pale and black, few or scattered, mainly distal; intramarginal glands black, spaced; main lateral veins 2-paired, tertiary reticulation dense but often rather obscure and apparently lax; base subcordate to cuneate, margin entire and plane; apex obtuse to rounded. Inflorescence (1 or) few- to many-flowered from 1–4 nodes, sometimes with flowering branches from up to 4 nodes below, the whole cylindrical to pyramidal; bracts and bracteoles oblong-elliptic, margin entire. Flowers 1.3–2(–2.5) cm in diam., stellate; buds ovoid, apex subacute to acute. Sepals free, erect, triangular-ovate to lanceolate, unequal to subequal, (3.5–)5–10 × 1–4 mm; laminar glands pale, streaks to dots and black dots, scattered, rather sparse or rarely absent; intramarginal and marginal glands black, dots, sparse, distal; margin entire, apex acute to subacuminate; veins 5–7. Petals ?golden yellow, tinged red in bud, oblong-obovate, 0.8–1.2 cm × 4–7 mm, 2.4–3 × as long as sepals, asymmetric; laminar glands black, dots to streaks, scattered; marginal glands black, distally dense; margin entire. Stamens ca. 90, apparently 3-fascicled, longest 8–10 mm, 0.7–0.8 × as long as petals. Ovary narrowly ovoid; styles 3, free, 4–4.5 mm, 1.3–1.6 × as long as ovary, widely spreading. Capsule broadly ovoid or oblong-ovoid to narrowly conic, (4–)6–10 × 2–6 mm, 2–3 × as long as sepals; valves occasionally with a few black longitudinal glandular streaks. Seeds medium brown, 0.7–1.1 mm; testa finely linear-foveolate. Fl. Jun–Aug, fr. Jul–Sep. $2n = 16$.

Fields, pastures, steppes, grassy and dry stony slopes, pebble shores, forest margins, clearings; sea level (Liaoning) to 2000 m (Guizhou). Anhui, Fujian, Gansu, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Jilin, Liaoning, Nei Mongol, Shaanxi, Shanxi, Sichuan, Zhejiang; also recorded from Guangdong, Guangxi [Korea, Mongolia, Russia (Far East, E Siberia)].

Hypericum attenuatum is variable but is distinguishable from all other mainland herbaceous species except *H. perforatum* by the 2-lined stem internodes. It would seem to be one diploid parent of the amphidiploid *H. perforatum* (the other being *H. maculatum* subsp. *immaculatum*).

57. *Hypericum perforatum* Linnaeus, Sp. Pl. 2: 785. 1753.

贯叶连翘 guan ye lian qiao

Hypericum perforatum var. *confertiflorum* Debeaux; *H. perforatum* var. *microphyllum* H. Léveillé (1908), not Candolle (1815).

Herbs, perennial, 20–60(–100) cm tall, erect from creeping and rooting base; stems numerous to few, much branched especially distally. Stems 2-lined, with few black glands on lines. Leaves sessile to subsessile; blade ± narrowly elliptic to ± narrowly oblong or linear, (0.7–)1–2.5(–3) cm × 3–7(–15) mm; thickly papery, abaxially paler; laminar glands pale, scattered and sometimes black, few, dots; intramarginal glands black, spaced, interspersed with small dense pale ones; main lateral veins ca. 2-paired, tertiary reticulation lax or scarcely visible;

base subcordate-amplexicaul to rather narrowly cuneate, margin entire, plane or ± recurved, apex obtuse. Inflorescence 3- to numerous-flowered, from 1–3 nodes; flowering branches curved-ascending from up to 15 or sometimes more nodes below, the whole nearly flat-topped to broadly pyramidal or cylindrical; bracts and bracteoles to 4(–7) mm, narrowly lanceolate to linear, margin entire. Flowers 1.5–2.5(–3) cm in diam., stellate; buds narrowly ovoid, apex acute. Sepals free, erect in bud, recurved in fruit, narrowly oblong or lanceolate to linear, equal, 3–4(–5) × 1–1.2 mm; laminar glands pale and often a few black, in 2(–4) rows, streaks (basally) to dots; intramarginal glands black, few, or absent; margin entire, apex acute to acuminate with tip somewhat glandular; veins 3(–5). Petals golden yellow, oblong to oblong-elliptic, (0.8–)1.2–1.5 cm × 5–6 mm, 3–4 × as long as sepals, asymmetric; laminar glands black or pale, dots to lines, or often absent; intramarginal glands black or pale, distal, in sinuses when present; margin distally ± crenate. Stamens 40–60, apparently 3-fascicled, longest 6–8 mm, 0.5–0.7 × as long as petals. Ovary narrowly ovoid to ovoid-ellipsoid; styles 3, 4.5–6 mm, 1.5–2 × as long as ovary, broadly to rather narrowly spreading. Capsule ovoid-conic to ovoid, 3–6.5 × 3–5 mm, 1–1.5 × as long as sepals; valves with abaxial vittae and lateral yellowish, elongate or short vesicles. Seeds dark brown, ca. 1 mm; testa finely linear-foveolate. Fl. Jun–Sep, fr. Jul–Oct. $2n = 32, 48$.

Open woodlands, meadows, grasslands, and steppes, riverbanks, stony and grassy slopes, roadsides, in dry or well-drained habitats; 100–2800 m. Gansu, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Shanxi, Sichuan, Xinjiang, Yunnan [NW India, Kazakhstan, Kyrgyzstan, Mongolia, Russia; NW Africa, SW to C Asia, Atlantic islands, Europe (except extreme N); introduced into many parts of the world].

Hypericum perforatum is apparently an allotetraploid that would appear to have arisen from a cross between two diploid taxa, namely *H. maculatum* subsp. *immaculatum* (Balkan Peninsula) and *H. attenuatum* (W Siberia to China).

In both the SW (S Europe, Mediterranean) and SE (China) parts of its range, small-leaved forms of *Hypericum perforatum* evolved, and both have been named var. *microphyllum* (respectively by Candolle in

1815 and H. Léveillé in 1908). This more southern Chinese form (var. *confertiflorum* Debeaux), which intergrades morphologically with the larger-leaved more northern Chinese form, has small, narrow leaves, with dense, smallish partial inflorescences remaining distinct on elongate, widely ascending branches.

Hypericum perforatum has been subdivided into four subspecies, of which two occur in China.

- 1a. Leaves (at least on main stem) sessile; petal laminar glands usually all pale 57a. subsp. *songaricum*
- 1b. Leaves all petiolate; petal laminar glands all black or absent 57b. subsp. *chinense*

57a. *Hypericum perforatum* subsp. *songaricum* (Ledebour ex Reichenbach) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 32: 95. 2002.

准噶尔金丝桃 zhun ga er jin si tao

Hypericum songaricum Ledebour ex Reichenbach, Icon. Bot. Pl. Crit. 3: 72. 1825; *H. perforatum* var. *songaricum* (Ledebour ex Reichenbach) K. Koch.

Leaves (at least on main stem) sessile, oblong to oblong-ovate, base ± shallowly cordate-clasping. Sepals finely acuminate. Petal laminar glands usually all pale. Capsule valves with lateral vittae linear or slightly swollen overall, not interrupted.

About 1100 m. Xinjiang [Kazakhstan, Kyrgyzstan, SW Russia; SE Europe (Ukraine)].

57b. *Hypericum perforatum* subsp. *chinense* N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 32: 101. 2002.

中国金丝桃 zhong guo jin si tao

Leaves all petiolate. Inflorescence and/or partial inflorescences congested; branches relatively long, curved-ascending. Petal laminar glands all black or absent.

• 400–2200 m. Gansu, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Shanxi, Sichuan, Yunnan [Japan (introduced)].

8. *Hypericum* sect. *Humifusoideum* R. Keller in Engler & Prantl, Nat. Pflanzenfam. 3(6): 211. 1893.

玉山金丝桃组 yu shan jin si tao zu

Deciduous wiry shrublets or perennial herbs with dark (black) glands present on leaves, anthers and usually sepals and petals. Sepals and petals 5, persistent after anthesis, sepals free, entire or rarely glandular-ciliate, petals entire or glandular-ciliate, apiculus absent. Stamens not or obscurely apparently 3-fascicled; anthers dorsifixed. Styles 3, free. Capsule valves slightly longitudinally vittate or nearly smooth. Seeds not or scarcely carinate, testa finely scalariform-reticulate.

Twelve species: China (Taiwan), Indonesia, New Guinea, Philippines; tropical and S Africa, Madagascar; two species (both endemic) in China.

58. *Hypericum nagasawae* Hayata, J. Coll. Sci. Imp. Univ. Tokyo 30(1): 38. 1911 [“*nagasawai*”].

玉山金丝桃 yu shan jin si tao

Hypericum hayatae Y. Kimura; *H. nagasawae* var. *nigrum* Y. Kimura; *H. randaiense* Hayata; *H. suzukianum* Y. Kimura; *H. taiwanianum* Y. Kimura; *H. taiwanianum* var. *ohwii* Y. Kimura.

Herbs, perennial, 5–35 cm tall, suberect to ascending from

creeping branching rooting base; stems solitary or ± cespitose, unbranched or ± branched above. Stems 2-lined, eglandular. Leaves sessile or subsessile; blade ovate or oblong to elliptic or oblanceolate or linear, (0.3–)0.8–2.5 cm × 3–12 mm; thickly papery to subleathery, abaxially glaucous or sometimes minutely papillose; laminar glands pale, dots, rather sparse, prominent above; intramarginal glands black, dense or irregular; main lateral veins 3- or 4-paired, sometimes forming ± marked submarginal vein, tertiary reticulation lax or obscure; base cuneate to angustate, margin entire and recurved, apex acute to rounded.

Inflorescence 1–11-flowered from 1 or 2 nodes, sometimes with flowering branches from 1 or 2 nodes below, the whole nearly flat-topped; bracts and bracteoles lanceolate to linear, margin entire. Flowers 1.5–2.7 cm in diam., ± stellate; buds ovoid to ellipsoid, apex obtuse. Sepals free, ascending in bud, spreading in fruit, ovate-lanceolate to ± narrowly oblong, equal, 3–7.5 × 0.8–2.5 mm; laminar glands pale or rarely black, streaks or rarely lines to dots; marginal glands black and sometimes pale, regular or irregular, immersed or rarely on cilia, or absent; margin entire or rarely with 1 or 2 glandular cilia, apex obtuse to acute; veins 5. Petals ?bright yellow, ?tinged red in bud, obovate or oblong-obovate to oblanceolate, 0.8–1.5 cm × 4–7 mm, 2–2.5 × as long as sepals; laminar glands pale and rarely black, lines to dots, or rarely absent; marginal glands black, sessile or occasionally on cilia, distal or subapical; margin usually entire. Stamens 40–80, not or obscurely fascicled, longest 4.5–8 mm, 0.6–0.8 × as long as petals. Ovary narrowly ovoid to ellipsoid-ovoid, 2–2.5 × 1–1.5 mm; styles 3, 3.5–7 mm, 1.3–3 × as long as ovary, ± spreading from near base. Capsule narrowly to broadly ovoid, (5–)6–7 × 3.5–5 mm, 1–1.5 × as long as sepals. Seeds dark brown, ca. 1 mm, scarcely carinate; testa finely scalariform-reticulate. Fl. Jul–Aug, fr. Aug–Oct. $2n = 36^*$.

• Stony or rocky slopes, roadsides, conifer forests; 2300–4000 m. Taiwan (central mountains).

The variation from the mainly northern, broad-leaved form, with sepals and styles ca. 1.3 × as long as the ovary (*Hypericum nagasawae*), to the southern, narrow-leaved form, with apically acute sepals and styles ca. 2 × as long as the ovary or more (*H. randaiense*), appears to be continuous; and indeed the trends in leaf form, sepal shape, and style length are only partially correlated. It is not possible, therefore, to recognize *H. randaiense* as a distinct species. Similarly, plants described as *H. suzukianum* and *H. hayatae*, respectively, are more extreme forms of trends within *H. nagasawae*; and the occasional forms with black-glandular-ciliate sepal margins (*H. taiwanianum*) are linked to the more typical forms by specimens with one or two glandular cilia on each sepal margin.

59. *Hypericum nokoense* Ohwi, Acta Phytotax. Geobot. 6: 48. 1937.

9. *Hypericum* sect. *Hirtella* Stefanoff, God. Sofiisk. Univ. Agr.-Les. Fak. 11: 183. 1933.

糙枝金丝桃组 cao zhi jin si tao zu

Herbs, perennial, glabrous to papillose [or pubescent], with dark (black or reddish) glands present on petals, usually on sepals and sometimes on leaf apex [and stems], but not forming intramarginal row on leaves. Stems not rooting. Sepals and petals 5, petals [usually] clawed, without apiculus; petals and stamens persistent after anthesis. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves longitudinally vittate; seeds not carinate or winged, testa [nearly smooth to] papillose.

Twenty-four species: SE Europe, Mediterranean region, SW and C Asia, W China; two species in China.

60. *Hypericum elongatum* Ledebour ex Reichenbach, Iconogr. Bot. Pl. Crit. 3: 71. 1825.

延伸金丝桃 yan shen jin si tao

Hypericum hyssopifolium var. *elongatum* (Ledebour ex Reichenbach) Ledebour; *H. hyssopifolium* subsp. *elongatum* (Ledebour ex Reichenbach) Woronow.

Herbs, perennial, 15–50 cm tall, erect, sometimes with prostrate to ascending vegetative shoots from the base, with

能高金丝桃 neng gao jin si tao

Herbs, perennial, 5–10 cm tall (sometimes longer and straggling), suberect to ascending from creeping, branching, and rooting base; stems ± cespitose, sometimes mat-forming, unbranched or ± branched above. Stems 2–4-lined or sometimes becoming nearly terete, eglandular. Leaves sessile or with petiole to 1 mm; blade ovate (below inflorescence) to elliptic or narrowly oblong or obovate, 4–12 × 1.5–6 mm, subleathery, abaxially markedly glaucous and sometimes minutely papillose; laminar glands pale and sometimes black, punctiform, dense to sparse; intramarginal glands black, dense; main lateral veins 2- or 3-paired, tertiary reticulation obscure; base cuneate-angustate, margin entire, apex rounded. Inflorescence 1–5(–7)-flowered, from terminal node, without lower branches, nearly flat-topped; bracts and bracteoles entire or with prominent marginal glands. Flowers 1.2–1.8 cm in diam., ± stellate; buds ovoid to ellipsoid, apex acute. Sepals free, erect, lanceolate to narrowly oblong, equal, 3–5 × 0.8–1.2 mm; laminar glands pale and black, lines to streaks; marginal to intramarginal glands black, irregular; margin entire, apex acute to subacuminate; veins 3–5. Petals ?bright yellow, obovate or oblong-lanceolate to lanceolate, 7–11 × 2–3(–4.5) mm, ca. 3 × as long as sepals; laminar glands pale and usually black, lines to dots; marginal glands absent; margin entire. Stamens ca. 43, obscurely apparently 3-fascicled, longest 5–8 mm, ca. 0.7 × as long as petals. Ovary ?ovoid; styles 3, 4–6 mm, 2–3 × as long as ovary, spreading from base. Capsule narrowly ovoid, 6–7 × ca. 4 mm, 1.5–2 × as long as sepals. Seeds not seen. Fl. Jul–Aug, fr. Aug–Sep.

• Mountain slopes; 1800–1900 m. Taiwan (Hualian, Nantou).

No single character separates *Hypericum nokoense* from *H. nagasawae* (from which it appears to have been derived by reduction); but the combination of small and relatively broad leaves, apically acute sepals usually with black, laminar glands, and styles more than twice as long as the ovary appears to distinguish it. The leaf glands are not completely black.

short or fascicled branches in most leaf axils. Stems 2-lined, glaucescent, eglandular or rarely with very few amber gland dots toward base. Leaves sessile; those on main stem narrowly oblong to linear, 1.2–3.2 cm × 1–4.5(–6) mm; thickly papery, ± glaucous, glabrous or adaxially sometimes finely undulate-papillose; laminar glands numerous, pale dots; lateral veins 2–4-paired (?or absent), tertiary reticulation not visible; base narrowly to broadly cuneate, margin entire and usually revolute, apex acute to obtuse or subapiculate. Leaves on vegetative shoots smaller, narrower, adaxially more markedly papillose,

often fascicled, apex apiculate to mucronate. Inflorescence many flowered, from 5–12(–17) nodes; flowering branches from up to 3 nodes below, the whole ± narrowly cylindrical, 8–25 cm; bracts and bracteoles narrowly ovate-triangular, glands pale, margin entire. Flowers 1.5–3 cm in diam., stellate; buds broadly ellipsoid to broadly cylindrical. Sepals free or nearly so, imbricate, broadly ovate or broadly oblong to elliptic, unequal, (2–)3–5 × 1–2.5 mm; laminar glands pale lines and some dots; marginal glands absent or on some (rarely all) sepals black, sessile, irregular; margin entire or subentire, apex rounded to obtuse or rarely acute; veins 5. Petals deep to golden yellow, very rarely red-tinged or -veined, obovate to oblanceolate, 1.2–1.8 cm × 4–8 mm, 3.5–4 × as long as sepals; laminar glands pale, dots and short streaks; marginal glands black; margin distally short glandular-ciliate. Stamens 40–60, longest 8–10 mm, ca. 0.5 × as long as petals. Ovary narrowly ovoid-pyramidal, rostrate; styles 4–5(–5.5) mm, ca. 1.3 × as long as ovary, ascending-erect. Capsule ovoid, 0.8–1.5 cm × 4–7 mm, 2.5–3.5 × as long as sepals. Seeds dark brown, ca. 2 mm. Fl. Jun–Jul, fr. Jul–Aug.

Steppes, dry mountain slopes; [below 2200 m in C Asia]. Xinjiang (Altay Shan) [Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan; SW Asia, SE Europe].

61. *Hypericum scabrum* Linnaeus, Cent. I Pl. 25. 1755.

糙枝金丝桃 cao zhi jin si tao

Drosanthe scabra (Linnaeus) Spach; *Hypericum asperum* Ledebour.

Herbs, perennial, (5–)10–45(–60) cm tall, erect or decumbent, glabrous, sometimes with decumbent to ascending vegetative shoots from base; stems numerous, much branched above

with branches ascending. Stems 2(–?)4-lined, scabrid with simple red-gland-tipped emergences especially toward base [or rarely nearly smooth]. Leaves sessile or subsessile; those on main stem with blade oblong or elliptic to lanceolate or linear, 0.7–2(–2.7) cm × 1.5–6.5 mm; thickly papery, rarely glaucous or the upper epidermis undulate; laminar glands pale, numerous, dots; main lateral veins 1- or 2-paired, tertiary reticulation not visible; base cuneate, margin entire and sometimes revolute, apex rounded to mucronate or uncinata. Leaves on axillary and vegetative shoots smaller, linear, more acute to uncinata. Inflorescence (5 to) many flowered, from 1–4 nodes, sometimes with flowering branches from 1 or 2 nodes below, flat-topped, ± dense, 0.5–8(–11) cm, to 6(–9) cm wide; bracts and bracteoles oblong to linear, margin entire or eroded or with black glands near apex. Flowers 5–14 mm in diam., stellate; buds short cylindrical to globose. Sepals 1/3 to 2/3 united, oblong, equal, 1–2.5 × 0.7–1.2 mm; laminar glands pale, usually in 2 lines; marginal glands black, on cilia or denticles, or absent; margin irregularly glandular-denticulate to -ciliate or eglandular-ciliate to subentire, apex rounded to subacute; veins 3. Petals bright or golden yellow, not red-tinged, oblanceolate to obovate, (3–)5–8 × (1–)2–3.5 mm, 3–4 × as long as sepals, long-clawed; laminar glands pale, dots and sometimes lines; margin distally usually black-glandular-ciliate. Stamens 25 to ca. 45, 4–8 mm, 0.8–1 × as long as petals. Ovary narrowly ovoid; styles 2–5 mm, erect, distally outcurved. Capsule ovoid-acuminate, (3–)4–8 × 2.5–5 mm, 2–2.5 × as long as sepals. Seeds dark brown, 1.5–2 mm. Fl. Jul, fr. Aug–Sep. $2n = 24, 28, ?48$.

Dry stony and rocky places, open or in scrub; 1100–1600 m. Xinjiang (Altay Shan) [Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan, Turkmenistan; SW Asia, SE Europe].

10. *Hypericum* sect. *Taeniocarpium* Jaubert & Spach, Ill. Pl. Orient. 1: 47. 1842.

毛金丝桃组 mao jin si tao zu

Herbs [or suffrutices], perennial, [glabrous or] pubescent, with dark glands present on petals, [usually on] sepals and sometimes on leaf apex, but not on anthers or forming intramarginal row on leaves. Stems rooting. Sepals and petals 5; petals and stamens persistent after anthesis; petals not clawed or with apiculus. Stamen fascicles apparently 3, anthers dorsifixed. Styles 3, free. Capsule valves longitudinally vittate; seeds not carinate or winged, testa [rugulose to] papillose.

Twenty-three species: Europe, Mediterranean region, SW and C Asia, NW Mongolia, W China; one species in China.

62. *Hypericum hirsutum* Linnaeus, Sp. Pl. 2: 786. 1753.

毛金丝桃 mao jin si tao

Herbs, perennial, 35–100 cm tall, all parts to sepals crisped-pubescent to -puberulous (longer on stem), erect from creeping and rooting base, with few branches. Stems terete, eglandular. Leaves subsessile or with petiole to 1.5 mm; blade ovate-oblong to elliptic, 1.7–5(–6) × 1–2 cm; thickly papery, abaxially paler; laminar glands pale, scattered dots; main lateral veins 2- or 3-paired, tertiary reticulation dense; base broadly cuneate, margin entire and plane, apex obtuse. Inflorescence many flowered, from 3–6 nodes, sometimes with subsidiary branches from 1–4 nodes below, the whole narrowly pyramidal to cylindrical, 3.5–25 × 1.5–6 cm; bracts and bracteoles lanceolate to linear-lanceolate, black-glandular-ciliate. Flowers ca.

9 mm in diam., stellate; buds ellipsoid, apex obtuse. Sepals shortly united, narrowly oblong to lanceolate or linear-lanceolate, subequal, (2.5–)3.5–4 × 0.7–1 mm; laminar glands pale, streaks to dots; marginal glands black, on cilia or denticles; margin glandular-ciliate to -denticulate, apex subacute; veins 3. Petals bright [or rarely pale] yellow, sometimes red-veined, oblong-elliptic, 1–1.2 cm × ca. 5 mm, 2–3 × as long as sepals; laminar glands sparse, pale, lines to dots; margin sparsely black-glandular-ciliate. Stamens 24–30, longest 7–10 mm, 0.7–0.8 × as long as petals. Ovary ovoid; styles 2–6 mm, 1.3–2.5 × as long as ovary. Capsule ovoid or oblong-ovoid to conic, 4–7 × 3–5 mm, 1.5–2 × as long as sepals. Seeds brown, ca. 1 mm. Fl. Jul–Aug, fr. Sep. $2n = ?16, 18$.

Wooded valleys and slopes; below 2800 m. Xinjiang (Gongliu) [Kazakhstan, Kyrgyzstan, Russia (European part, Siberia E to

Angara Sayan); NW Africa (Algeria), SW Asia, Europe (except Mediterranean region)].

Hypericum hirsutum is the only Chinese *Hypericum* with hairy stems and leaves.

11. *Hypericum* sect. *Trigynobrathys* (Y. Kimura) N. Robson, Bull. Brit. Mus. (Nat. Hist.), Bot. 16: 3. 1987.

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Sarothra sect. *Trigynobrathys* Y. Kimura in Nakai & Honda, Nov. Fl. Jap. 10: 233. 1951.

[Shrubs, subshrubs or] perennial to annual herbs, [nearly always] glabrous, without dark glands. Stems rooting or not. Sepals and petals 5; sepals free, entire; petals not clawed, without apiculus; petals and stamens persistent after anthesis. Stamens [not usually clearly fascicled] irregularly arranged, anthers dorsifixed. Styles (2 or)3[-5], free. Capsule valves obscurely longitudinally vittate; placentation parietal; seeds not carinate or winged, testa reticulate to ribbed-scalariform.

Fifty-one species: North and South America, tropical and S Africa, Madagascar, E and SE Asia, Australia; introduced in Europe; two species in China.

63. *Hypericum gramineum* G. Forster, Fl. Ins. Austr. 53. 1786.

细叶金丝桃 xi ye jin si tao

Hypericum japonicum Thunberg var. *kainantense* Masamune; *H. japonicum* var. *lanceolatum* Y. Kimura; *Sarothra graminea* (G. Forster) Y. Kimura; *S. saginoides* Y. Kimura.

Herbs, perennial or annual, 5–30 cm tall, erect to decumbent but not rooting; stems solitary or ± cespitose, unbranched below inflorescence or variously branched. Stems 4-lined, eglandular. Leaves sessile; blade lanceolate or rarely ovate-lanceolate to linear, 0.6–1.3[-2.5] cm × 1–5[-8] mm; thickly papery, abaxially paler and sometimes glaucous; laminar gland dots dense distally, sparser proximally; intramarginal glands dense; with or without one pair of basal main lateral veins, veins prominent abaxially, tertiary reticulation not visible; base cordate to rounded or sometimes cuneate and usually somewhat decurrent and forming a “V,” margin plane or recurved, apex obtuse to rounded. Inflorescence 1–21-flowered, terminal, sometimes with subsidiary branches from up to 3 nodes below, triangular-lanceolate to linear; bracts and bracteoles triangular-lanceolate to linear. Flowers 5–8 mm in diam., stellate; buds ellipsoid, apex subacute. Sepals free, erect, lanceolate to narrowly elliptic, subequal to unequal, 2.8–5[-9] × [0.8–]1.5–2 mm; laminar glands lines, distally dots; marginal glands absent; apex acute to subacute; veins 3–5. Petals pale to bright yellow or orange, obovate to oblanceolate, 5–10 × 2–5 mm, ca. 1.3 × as long as sepals; laminar glands few, streaks, or absent; margin entire, eglandular. Stamens 30–40, irregular, longest 2.5–4 mm, 0.4–0.6 × as long as petals. Ovary narrowly ovoid-conic; styles 3, 0.7–1.8 mm, ca. 0.9 × as long as ovary, ± spreading. Capsule ovoid-conic, 2.5–8 × 1–3.5 mm, ca. 2 × as long as sepals. Seeds brown, ca. 0.5 mm; testa finely ribbed-scalariform. Fl. May–Oct, fr. Jul–Oct. $2n = 16, 14$.

Wet but well-drained habitats; (1200–)1900–2700 m. ?Hainan, Taiwan (Xinzhu), S Yunnan [Bhutan, NE India, Papua New Guinea, Vietnam; Australia, Pacific islands (Hawaii, New Caledonia, New Zealand)].

The description of *Hypericum japonicum* var. *kainantense*, from Hainan, appears to fit *H. gramineum* better than *H. japonicum*. One of the authors (Robson) has not examined the type specimen of this variety or the specimen on which the record of *H. gramineum* from “Chang Ngo Shan” (Zhang Nao Shan, Wanning, Hainan) is based, so the occurrence of this species in Hainan remains unconfirmed.

64. *Hypericum japonicum* Thunberg in Murray, Syst. Veg., ed. 14, 702. 1784.

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Brathys japonica (Thunberg) Wight; *B. laxa* Blume; *Hypericum cavaleriei* H. Léveillé; *H. chinense* Osbeck (1757), nom. utique rej., not Linnaeus (1759), nor Retzius (1788); *H. japonicum* var. *calyculatum* R. Keller; *H. japonicum* var. *cavaleriei* (H. Léveillé) Koidzumi; *H. japonicum* var. *maximowiczii* R. Keller; *H. japonicum* var. *thunbergii* (Franchet & Savatier) R. Keller; *H. laxum* (Blume) Koidzumi; *H. nervatum* Hance; *H. thunbergii* Franchet & Savatier; *Sarothra japonica* (Thunberg) Y. Kimura; *S. laxa* (Blume) Y. Kimura.

Herbs, annual, 2–45 cm, tall or long, erect to decumbent or prostrate and rooting at base or along stem; stems solitary or ± cespitose, unbranched below inflorescence or variously branched. Stem 4-lined, with scattered gland dots. Leaves sessile; blade usually ovate or ovate-triangular to oblong or elliptic, 0.2–1.8 cm × 1–10 mm; thickly papery, abaxially paler and sometimes glaucous; laminar and intramarginal glands dense; main lateral veins 1–7, basal, tertiary reticulation not visible; base cordate-amplexicaul to cuneate, not decurrent, margin plane, apex obtuse to rounded. Inflorescence 1- to ca. 30-flowered, terminal, sometimes with flowering branches from up to 3 nodes below; bracts and bracteoles lanceolate-subulate to leaf-like. Flowers 4–8 mm in diam., stellate; buds cylindric-ellipsoid, apex ± obtuse. Sepals free, erect, narrowly oblong or rarely lanceolate to elliptic, subequal to unequal, 2–5.5 × 0.5–2 mm; laminar glands lines, distally dots; marginal glands absent; apex acute or obtuse to rounded; veins 3–5. Petals pale to bright yellow or orange, obovate to oblong or elliptic, 1.7–5 × 0.8–1.8 mm, 0.4–0.8 × as long as sepals; laminar glands absent; margin entire, eglandular. Stamens 5–30, irregular or in 5 obscure groups when few, longest 1.5–2.8 mm, 0.4–0.8 × as long as petals. Ovary ± broadly ovoid to subglobose; styles (2 or)3, 0.4–0.8(-1) mm, 0.4–0.6 × as long as ovary, spreading. Capsule cylindric to globose, (2–)2.5–6 × 1.3–2.8 mm, usually slightly shorter than to slightly exceeding sepals. Seeds straw-yellow, ca. 0.5 mm; testa finely linear-scalariform. Fl. Mar–Oct, fr. Apr–Nov. $2n = 16$.

Rice fields, ditches, marshes, grasslands, waste places; sea level to ca. 3000 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hubei, Hunan, Jiangsu, Jiangxi, Liaoning, Shandong, Sichuan, Taiwan,

CLUSIACEAE

Yunnan, Zhejiang [Bhutan, Cambodia, N and S India, Indonesia (Sumatra to Irian Jaya), Japan, S Korea, Laos, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam; SE Australia, Pacific islands (New Zealand)].

Hypericum japonicum is very variable and, the variation being continuous, eight nodal variants have been recognized but not formally named. Five of these occur in China:

(i) Stems erect to decumbent; inflorescence from terminal node only; bracts linear to lanceolate; sepals narrow ("*japonicum*" in part). Lowland.

(ii) Stems erect to decumbent; inflorescence from more than one node, sometimes with other branches; bracts linear to lanceolate; sepals narrow ("*japonicum*" in part). Lowland.

(iii) Stems erect; inflorescence from terminal node; bracts leaf-like; sepals narrowly oblong to narrowly elliptic ("*maximowiczii*"). ?Lowland.

(iv) Stems decumbent to procumbent; inflorescence from terminal node; bracts leaflike; sepals narrowly oblong to narrowly elliptic ("*laxum*"). Lowland to upland.

(v) Stems decumbent to prostrate; inflorescence from terminal node; bracts leaflike; sepals (at least outer) broadly elliptic to obovate ("*calyculatum*"). Upland to montane.

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