

Table S4 Identification key to *Rosa* in China.

1. Key to Subgenus and Sections of *Rosa*

- 1 Leaves simple, exstipulate; flowers solitary; hypanthia urn-shaped.....**Subgen. *Hulthemia* (Dumort.) Focke**
- 1 Leaves pinnate; stipulate; flowers solitary or in clusters.....(2) **Subgen. *Rosa***
- 2 Hypanthia cup-shaped; achenes only attached to the raised base of the hypanthium; styles free, not exerted.....**Sect. *Microphyllae* Crép.**
- 2 Hypanthia urn-shaped; achenes attached to the wall and bottom of the hypanthium; styles free or closely grouped into a column, exerted or not.....(3)
- 3 Stipules mostly adnate to petiole, persistent.....(4)
- 3 Stipules free or nearly free from petiole (Occasionally partially free), caducous.....(7)
- 4 Styles free, not exerted or slightly exerted, shorter than stamens.....(5)
- 4 Styles free or closely grouped into a column, exerted, shorter or longer than stamens.....(6)
- 5 Flowers solitary or several arranged in a corymb, bracteate; leaflets 5~11.....**Sect. *Rosa***
- 5 Flowers solitary, rarely in clusters, ebracteate; petals often white or yellow.....**Sect. *Pimpinellifoliae* DC. ex Ser.**
- 6 Styles separate or slightly grouped, shorter than stamens; leaflets 3~5 (7).....**Sect. *Chinenses* DC. ex Ser.**
- 6 Styles clustered into a column, nearly equal to stamens in length; leaflets 5~9.....**Sect. *Synstglae* DC. ex Ser.**
- 7 Branchlets tomentose; leaflets 7~9, stipules pinnatifid; flowers mainly solitary, with large bracts.....**Sect. *Braeteatae* Thory**
- 7 Branchlets glabrous; leaflets 3~5; stipules not pinnatifid, flowers solitary or forming inflorescences, without large bracts.....(8)
- 8 Pedicels and hypanthia glabrous; flowers small, 2~3 cm in diam, white or yellow, occasionally pink, numerous in clusters; stipules subulate or linear.....**Sect. *Banksianae* Lindl.**
- 8 Pedicels and hypanthia bristly; flowers large, 6~8 cm in diam, white, solitary; stipules lanceolate.....**Sect. *Laevigatae* Thory**

2. Key to Subgen. *Rosa* T. T. Yu et T. C. Ku

Sect. *Pimpinellifoliae* DC. ex Ser.

- 1 petals 4(5), sepals 4(5), flowers usually white (2).....**Ser. *Sericeae* (Crép.) T. T. Yu et T. C. Ku**
- 1 petals 5, sepals 5, flowers usually yellow or yellowish (15).....**Ser. *Spinossissimae* T. T. Yu et T. C. Ku**
- 2 Leaflets doubly serrate, glandular at margin.....(3)
- 2 Leaflets singly serrate, glandular or not at margin.....(5)
- 3 Hips and pedicels with glandular trichome, hips usually subglobose.....(4)
- 3 Hips and pedicels glabrous, hips ovoid or obovoid..... *R. zhongdianensis* T. C. Ku
- 4 Leaflets without glandular trichome..... *R. sikangensis* T. T. Yu et T. C. Ku f. *sikangensis*
- 4 Leaflets with glandular trichome, or glandular trichome restricted to veins.....*R. sikangensis* f. *pilosa* Yu et Ku
- 5 Leaves pubescent on both surfaces, hips and pedicels pubescent.....(6)
- 5 Leaves glabrous adaxially, pubescent or glabrous abaxially; hips and pedicels glabrous.....(10)
- 6 Leaflets (5)7~9, mostly 9..... *R. mairei* H. Lév.
- 6 Leaflets 7~13, mostly 11.....(7)
- 7 Branchlets with large winged prickles.....*R. sericea* Lindl. f. *pteracantha* Franch.
- 7 Branchlets without winged prickles.....(8)
- 8 Leaflets glandular abaxially.....*R. sericea* Lindl. f. *glandulosa* T. T. Yu et T. C. Ku
- 8 Leaflets eglandular abaxially.....(9)
- 9 Leaflets pubescent abaxially.....*R. sericea* Lindl. f. *sericea*

- 9 Leaflets glabrous or nearly glabrous abaxially..... *R. sericea* Lindl. f. *glabrescen* Franch.
- 10 Leaflets 9~13(17), mostly 11 or more, thickly chartaceous.....(11)
- 10 Leaflets (7)9-13, mostly 9 or fewer, chartaceous.....(14)
- 11 Young branches densely covered with needle-like prickles and large reddish winged prickles..... *R. omeiensis* Rolfe f. *pteracantha* (Franch) Rehder et E. H. Wilson
- 11 Young branches without winged prickles.....(12)
- 12 Leaflets (5)7-9, glabrous on both surfaces, and margin serrate only on the upper half.....*R. omeiensis* Rolfe f. *paucijuga* T. T. Yu et T. C. Ku
- 12 Leaflets 9-13(17), margin fully or mostly serrate.....(13)
- 13 Petioles and abaxial leaflet surfaces glandular..... *R. omeiensis* Rolfe f. *glandulosa* T. T. Yu et T. C. Ku
- 13 Petioles and abaxial leaflet surfaces eglandular..... *R. omeiensis* Rolfe f. *omeiensis*
- 14 Leaflets glabrous abaxially; pedicels enlarged at fruiting stage.....*R. morrisonensis* Hayata
- 14 Leaflets with hairs along veins abaxially; pedicels not enlarged at fruiting stage..... *R. taronensis* T. T. Yu et T. C. Ku
- 15 Flowering branches densely covered with prickles and needle-like prickle.....(16)
- 15 Flowering branches with prickles only, rarely with needle-like prickles.....(18)
- 16 Leaflet margins doubly serrate, glandular abaxially..... *R. spinosissima* L. var. *kokanica* (Regel) L. Luo
- 16 Leaflet margins singly serrate, glandular or not abaxially.....(17)
- 17 Flowers larger (4-6 cm in diam.); pedicels sparsely pubescent..... *R. spinosissima* L. var. *altaica* (Willd.) Rehder
- 17 Flowers smaller (2-4 cm in diam.); pedicels densely glandular-pubescent..... *R. spinosissima* L. var. *spinosissima*
- 18 Leaflets glandular abaxially, margins doubly serrate.....(19)
- 18 Leaflets eglandular abaxially, margins singly serrate.....(20)
- 19 Leaflets 9~13, oblong; flowers pale yellow, fading to white..... *R. primula* Bouleng.
- 19 Leaflets 7~9, elliptical; flowers bright yellow..... *R. foetida* Herrm.
- 20 Leaflets 5~9, margins often serrate on the upper half; branches with broad-based prickles.....*R. platyacantha* Schrenk
- 20 Leaflets 5~13(15), margins fully or mostly serrate (on the upper 2/3).....(21)
- 21 Branches with large winged prickles and needle-like prickles..... *R. hugonis* Hemsl. f. *pteracantha* L. Luo
- 21 Branches without winged prickles(22)
- 22 Leaflets glabrous on both surfaces; vegetative branches sometimes with needle-like prickles at the base.....*R. hugonis* Hemsl.
- 22 Leaflets glabrous adaxially, often pubescent abaxially; branches usually without needle-like prickles.....*R. xanthina* Lindl. f. *normalis* Rehder et E. H. Wilson

Sect. *Rosa*

- 1 Sepals deciduous together with the top of the hypanthium (2).....**Ser. *Beggerianae*** T. T. Yu et T. C. Ku
- 1 Sepals persistent.....(9)
- 2 Flowers pink or purplish-red.....(3)
- 2 Flowers usually white (sometimes with a reddish tinge at the bud stage).....(6)
- 3 Leaflets 7~9(11), margins singly or doubly serrate, not curved downward; bracts 2~4; hips globose or ovoid.....(4)
- 3 Leaflets 7~15, margins doubly serrate, often curved downward; sepals extending beyond petals at bloom; bracts 2; hips subglobose.....(5)
- 4 Leaflets abaxially eglandular, margins singly or obscurely doubly serrate.....*R. willmottiae* Hemsl. var. *willmottiae*
- 4 Leaflets glandular abaxially, margins doubly serrate with glandular tips.....*R. Rosa willmottiae* Hemsl. var. *glandulifera* T. T. Yu et T. C. Ku
- 5 Leaflets with deep serrations.....*R. prattii* Hemsl. f. *incisifolia* Y. Y. Yang et L. Luo
- 5 Leaflets without deep serrations.....*R. prattii* Hemsl. f. *prattii*

6 Prickles on old branches often paired, sharp, and straight; hips large, ovoid or globose.....	<i>R. albertii</i> Regel
6 Prickles on old branches often paired and curved; hips small, subglobose.....	(7)
7 Stipule margins glandular; hips red or dark red at maturity.....	(8)
7 Stipule margins entire or with few glands; hips purple-black to black at maturity.....	<i>R. liensis</i> Chrshan.
8 Stipule margins glandular; hips red or dark red at maturity.....	<i>R. beggeriana</i> Schrenk var. <i>beggeriana</i>
8 Leaflets densely pubescent on both surfaces; pedicels and hypanthia densely pubescent, partially deciduous at maturity.....	<i>R. Rosa beggeriana</i> Schrenk var. <i>liouii</i> (T. T. Yu et H. T. Tsai) T. T. Yu et T. C. Ku
9 Leaflets length \geq 3cm (Based on the apical first pair of leaflets from the middle section of robust new shoots on perennial branches) (10).....	Ser. Rosa
9 Leaflets length < 3cm (Based on the apical first pair of leaflets from the middle section of robust new shoots on perennial branches) (48).....	Ser. Webbiana T. T. Yu et T. C. Ku
10 \leq 7 flowers per inflorescence.....	(11)
10 \geq 8 flowers per inflorescence.....	(35)
11 Flowers solitary (terminal or axillary).....	(12)
11 Flowers sometimes grouped in a terminal corymbose inflorescence, otherwise solitary in leaf axils.....	(15)
12 Flowers semi-double (7–10 petals), pink fading to light pink....	<i>R. praelucens</i> Byhouwer var. <i>semi-plena</i> Y. Y. Yang et L. Luo
12 Flowers single (5 petals).....	(13)
13 Flowers pinkish-white fading to white.....	<i>R. praelucens</i> Byhouwer var. <i>alba</i> Y. Y. Yang et L. Luo
13 Flowers deep pink or rose-red.....	(14)
14 Flowers deep pink.....	<i>R. praelucens</i> Byhouwer var. <i>praelucens</i>
14 Flowers rose-red.....	<i>R. praelucens</i> Byhouwer var. <i>rosea</i> Y. Y. Yang et L. Luo
13 Flowers deep pink.....	<i>R. praelucens</i> Byhouwer var. <i>praelucens</i>
13 Flowers not deep pink.....	(14)
14 Flowers rose-red.....	<i>R. praelucens</i> Byhouwer var. <i>rosea</i> Y. Y. Yang et L. Luo
14 Flowers pinkish-white fading to white.....	<i>R. praelucens</i> Byhouwer var. <i>alba</i> Y. Y. Yang et L. Luo
15 Branches pubescent; leaflets rugose with impressed veins, pubescent on both surfaces.....	(16)
15 Branches glabrous; leaflets smooth.....	(17)
16 Flowers single, dark pink.....	<i>R. rugosa</i> Thunb. f. <i>rosea</i> Rehder
16 Flowers single, pinkish-white to white.....	<i>R. rugosa</i> Thunb. f. <i>alba</i> (Ware) Rehder
17 Leaflets 5~9; flowers white or pinkish-white at full bloom, rarely pink.....	(18)
17 Leaflets 5~11; flowers often in cymes, pink or red at full bloom, rarely white.....	(21)
18 Leaflets 5~7; young branches prickless, often drooping downward; flowers white, often solitary, or 2~3 in clusters.....	<i>R. schrenkiana</i> Crép.
18 Leaflets 7~9; young branches with moderate to dense prickles; flowers white or pinkish-white.....	(19)
19 Prickles small, straight; leaflet margins sometimes partially doubly serrate; flowers often 2~4 in cymes with a peduncle.....	<i>R. fargesiana</i> Boulenger
19 Prickles large, curved; leaflet margins singly serrate; flowers often solitary of 2~3 in clusters, without peduncle.....	(20)
20 Flowers white.....	<i>R. tomurensis</i> L. Luo, C. Yu & Q. X. Zhang var. <i>tomurensis</i>
20 Flowers pink.....	<i>R. tomurensis</i> L. Luo, C. Yu & Q. X. Zhang var. <i>rosea</i> L. Luo
21 Branchlets with stout prickles and dense bristles.....	(22)
21 Branchlets usually with only stout prickles.....	(26)
22 Leaflets 5~7; branches usually with sharp curved prickles; flowers typically 2~3 in clusters; hips glabrous....	<i>R. cinnamomea</i> L.
22 Leaflets 7~9.....	(23)
23 Leaflets pubescent abaxially; hips glabrous, pedicels of hips sparsely glandular.....	(24)

- 23 Leaves glabrous on both surfaces. Hips and pedicels glandular.....(25)
- 24 Flowers pink or light pink.....*R. acicularis* Lindl. var. *acicularis*
- 24 Flowers white.....*R. acicularis* Lindl. var. *albifloris* X. Lin et Y. L. Lin
- 25 Hypanthia and pedicels densely glandular.....*R. bella* Rehder et E. H. Wilson var. *bella*
- 25 Hypanthia and pedicels glabrous or pedicels sparsely glandular.....
R. bella Rehder et E. H. Wilson var. *nuda* T. T. Yu et H. T. Tsai
- 26 Leaves glabrous or nearly so abaxially; hips glabrous or nearly so.....(27)
- 26 Leaves pubescent or glandular abaxially; hips glandular.....(28)
- 27 Leaflets eglandular abaxially; margins typically singly serrate.....*R. saturata* Baker var. *saturata*
- 27 Leaflets densely glandular abaxially; margins partially doubly serrate with glandular
tips.....*R. saturata* Baker var. *glandulosa* T. T. Yu et T. C. Ku
- 28 Leaflets 7~9, margins singly or doubly serrate; flowers pink or pinkish white.....*R. chengkouensis* T. T. Yu et T. C. Ku
- 28 Leaflets 7~11 or more, margins singly or doubly serrate; flowers pink or red.....(29)
- 29 Leaflets glandular abaxially and on margins; flowers bright red; hips glandular, yellow or orange at maturity.....(30)
- 29 Leaflets pubescent abaxially (eglandular); flowers pink; hips glandular or glands deciduous, red or orange at maturity.....(31)
- 30 Petioles and abaxial surfaces of leaflets glabrous.....*R. moyesii* Hemsl. et E. H. Wilson var. *moyesii*
- 30 Petioles and abaxial surfaces of leaflets pubescent.....*R. moyesii* Hemsl. et E. H. Wilson var. *pubescens* T. T. Yu et H. T. Tsai
- 31 Branchlets with few, simple prickles.....(32)
- 31 Branchlets with sharp, flattened, winged prickles; old stems also with needle-like prickles.....(33)
- 32 Leaflets glandular abaxially, margins often doubly serrate.....*R. macrophylla* Lindl. var. *glandulifera* T. T. Yu et T. C. Ku
- 32 Leaflets eglandular, margins singly serrate.....*R. macrophylla* Lindl. var. *macrophylla*
- 33 Sepals entire; petals pubescent abaxially.....*R. sweginzowii* Koehne var. *stevensii* (Rehder) T. C. Ku
- 33 Sepals ovate-lanceolate or pinnatifid; petals glabrous abaxially.....(34)
- 34 Leaflets glandular abaxially; pedicels relatively long (2~3 cm)*R. sweginzowii* Koehne var. *glandulosa* Card.
- 34 Leaflets eglandular abaxially.....*R. sweginzowii* Koehne var. *sweginzowii*
- 35 Prickles on branches distinctly curved.....(36)
- 35 Prickles on branches relatively straight.....(39)
- 36 Flowers pink or pinkish-white.....*R. laxa* Retz. var. *rosea* L. Luo, C. Yu & Q. X. Zhang
- 36 Flowers white.....(37)
- 37 Leaflets coriaceous.....*R. laxa* Retz. var. *kaschgarica* (Rupr.) Y. L. Han
- 37 Leaflets chartaceous.....(38)
- 38 Leaflets densely pubescent abaxially, sparsely pubescent adaxially.....*R. laxa* Retz. var. *mollis* T. T. Yu et T. C. Ku
- 38 Leaflets nearly glabrous, ovate to obovate; pedicels glandular or glabrous.....*R. laxa* Retz. var. *laxa*
- 39 Hips glabrous, pedicels glabrous or glandular.....(40)
- 39 Hips and pedicels glandular.....(44)
- 40 Leaflets 5~7~9, often 3 near the flowers; pedicels glandular.....*R. corymbulosa* Rolfe
- 40 Leaflets 7~9~11, often 5 near the flowers; pedicels glandular or not.....(41)
- 41 Prickles on branchlets needle-like; leaflets glabrous on both surfaces, chartaceous (papery); pedicels
glabrous.....*R. persetosa* Rolfe
- 41 Prickles on branchlets sharp (not needle-like); leaflets often pubescent or glandular abaxially, thickly
chartaceous.....(42)
- 42 Branchlets densely covered with prickles of varying sizes.....*R. davurica* Pall. var. *setacea* Liou
- 42 Branchlets with normal prickles, not densely covered with variable sizes.....(43)
- 43 Leaflets abaxially with a whitish bloom, pubescence, and glands.....*R. davurica* Pall. var. *davurica*

43 Leaflets glabrous on both surfaces (or with pubescence only along veins).....	<i>R. davurica</i> Pall. var. <i>glabra</i> Liou
44 Leaflets 9~15, pubescent abaxially (or at least pubescent along veins).....	(45)
44 Leaflets 7~9, glabrous or sparsely pubescent on both surfaces.....	(46)
45 Hips long-ellipsoid, ca. 2.5 cm long; pedicels 3~4 cm long.....	<i>R. davidii</i> Crép. var. <i>elongata</i> Rehder et E. H. Wilson
45 Hips obovoid, smaller; pedicels shorter.....	<i>R. davidii</i> Crép. var. <i>davidii</i>
46 Leaflets 5~6 cm long, margins singly serrate.....	(47)
46 Leaflets 2.5~3 cm long, margins often doubly serrate.....	<i>R. setipoda</i> Hemsl. et E. H. Wilson
47 Leaflets 5~6 cm long; flowers smaller.....	<i>R. caudata</i> Baker var. <i>caudata</i>
47 Leaflets and flowers are larger; leaflets 8~10 cm long; flowers 4~6 cm in diameter.....	<i>R. caudata</i> Baker var. <i>maxima</i> T. T. Yu et T. C. Ku
48 ≤ 7 flowers per inflorescence.....	(49)
48 ≥ 8 flowers per inflorescence.....	(62)
49 Sepals often pinnatifid.....	(50)
49 Sepals usually not pinnatifid.....	(51)
50 Hypanthia and sepals densely glandular.....	<i>R. pinnatisepala</i> T. C. Ku f. <i>glandulosa</i> Ku
50 Hypanthia eglandular (though leaflets, sepals, and bracts may be glandular).....	<i>R. pinnatisepala</i> T. C. Ku f. <i>pinnatisepala</i>
51 Flowers white or pinkish when opening, fading to white, rarely pink.....	(52)
51 Flowers pink or purplish red.....	(53)
52 Leaflets 5~7~9; flowers usually 1~3(4) per inflorescence.....	(53)
52 Leaflets 7~9~13; flowers usually solitary.....	(54)
53 Leaflets 5~7, margins doubly serrate, often glandular; hips obovoid, glabrous.....	<i>R. tibetica</i> T. T. Yu et T. C. Ku
53 Leaflets 7~9, margins singly serrate; hips densely glandular or glands slightly deciduous together with the top of the hypanthium.....	<i>R. fedtschenkoana</i> Regel
54 Leaflets typically 5~9.....	(55)
54 Leaflets typically 7~13, often 9 or more.....	(60)
55 Leaflets 5~7; margins often doubly serrate with glandular tips.....	(56)
55 Leaflets 7~9; margins singly or doubly serrate.....	(59)
56 Flowers pale purple, purplish-pink, or reddish-purple.....	(57)
56 Flowers pale pink; pedicels 1~2 cm long, glandular; hips and pedicels glabrous or glandular.....	<i>R. giralduii</i> Crép. var. <i>bidentata</i> T. T. Yu et T. C. Ku
57 Leaflets glandular on the abaxial surface.....	<i>R. forrestiana</i> Boulenger f. <i>glandulosa</i> T. C. Ku
57 Leaflets not glandular on the abaxial surface.....	(58)
58 Petals with a dark purple blotch at the base.....	<i>R. forrestiana</i> Boulenger var. <i>maculata</i> L. Luo et Y. Y. Yang
58 Petals without a dark purple blotch at the base.....	<i>R. forrestiana</i> Boulenger var. <i>forrestiana</i>
59 Branchlets densely covered with straight prickles and needle-like prickles of varying sizes; leaflet margins usually doubly serrate; flowers pink; hips often glandular, later glabrescent; pedicels often glabrous.....	<i>R. oxyacantha</i> M. Bieb.
59 Branchlets with only straight prickles; leaflet margins singly serrate, nearly entire at the base; hips glabrous, pedicels sometimes glandular.....	<i>R. webbiana</i> Wall. ex Royle (<i>R. sinobiflora</i> T. C. Ku)
60 Branchlets densely covered with needle-like prickles; leaflets 7~11(13).....	(61)
60 Branchlets sparsely prickled; leaflets (9)11~13.....	<i>R. tsinglingensis</i> Pax. et Hoffm.
61 Leaflets on both surfaces, petioles, and rachises glabrous and eglandular; leaflet margins singly or doubly serrate.....	<i>R. koreana</i> Kom. var. <i>koreana</i>
61 Leaflets abaxially, petioles, and rachises densely glandular; leaflet margins doubly serrate.....	<i>R. koreana</i> Kom. var. <i>glandulosa</i> T. T. Yu et T. C. Ku

- 62 Pedicels with few or no glands.....(63)
- 62 Pedicels glandular(65)
- 63 Leaflets nearly orbicular, thickly papery; pedicels nearly absent*R. calyptopoda* Card.
- 63 Leaflets ovate or elliptic, papery; pedicels distinct, 1~3.5 cm long.....(64)
- 64 Leaflets 9~15; margins irregularly serrate, occasionally doubly serrate.....*R. sertata* Rolfe var. *multijuga* T. T. Yu et T. C. Ku
- 64 Leaflets 7~9(11); margins singly serrate.....*R. sertata* Rolfe var. *sertata* (*R. farreri* Stapf ex Cox, *R. graciliflora* Rehder et E. H. Wilson, *R. banksiopsis* Baker)
- 65 Leaflets leathery or sub-leathery; pedicels usually short, without glandular trichomes(66)
- 65 Leaflets papery; pedicels long, with glandular trichomes.....(67)
- 66 Branchlets with paired or scattered straight prickles, often unarmed on the upper half; leaflets 7~9; flowers pink; pedicels densely glandular; hips subglobose.....*R. multibracteata* Hemsl. et E. H. Wilson
- 66 Branchlets with sparse straight or dense needle-like prickles; leaflets (7)9~15, margins with glandular serration tips; flowers white to pink; pedicels sparsely glandular; hips subglobose.....*R. murielae* Rehder et E. H. Wilson
- 67 Branchlets sparsely pubescent.....*R. hezhangensis* T. L. Xu
- 67 Branchlets glabrous.....(68)
- 68 Leaflets abaxially with conspicuous reticulate veins, both surfaces pubescent, denser abaxially.....*R. girdii* Crép. var. *venulosa* Rehder et E. H. Wilson
- 68 Leaflets abaxially with inconspicuous reticulate veins, sparsely pubescent.....*R. girdii* Crép. var. *girdii*
- Sect. *Microphyllae* Crép.**
- 1 Erect shrubs; flowers double, pink.....*R. roxburghii* Tratt. f. *roxburghii*
- 1 Erect or semi-rambling shrubs; flowers single, white or pink.....(2)
- 2 Flowers white.....*R. roxburghii* Tratt. f. *candida* S. D. Shi
- 2 Flowers pink.....(3)
- 3 Achenes numerous.....*R. roxburghii* Tratt. f. *normalis* Rehder et E. H. Wilson
- 3 Achenes very few or absent.....*R. kweichowensis* T. T. Yu et T. C. Ku
- Sect. *Bracteata* Thory.**
- 1 Branchlets densely pubescent.....*R. bracteata* Wendl. f. *bracteata*
- 1 Branchlets densely covered with pubescence and needle-like prickles.....*R. bracteata* Wendl. var. *scabricaulis* Lindl. ex Koidz.
- Sect. *Laevigata* Thory.**
- 1 Creeping vines; flowers solitary, single, petals 5.....(2)
- 1 Creeping vines; flowers solitary, semi-double, petals 6~10.....*R. laevigata* Michx. f. *semitplena* T. T. Yu et T. C. Ku
- 2 Hips pyriform or ovoid, densely covered with needle-like prickles.....*R. laevigata* Michx. var. *laevigata*
- 2 Hips pyriform or ovoid, glabrous.....*R. laevigata* Michx. var. *leiocapus* Y. Q. Wang et P. Y. Chen
- Sect. *Banksianae* Lindl.**
- 1 Flowers in corymbiform cymes; sepals entire; styles often glabrous.....(2)
- 1 Flowers in compound-corymbiform cyme; sepals pinnate-lobed; styles pubescent.....(8)
- 2 Flowers double.....(3)
- 2 Flowers single, white, yellow, or pink.....(4)
- 3 Flowers white, fragrant.....*R. banksiae* Ait. var. *banksiae*
- 3 Flowers yellow, slightly fragrant.....*R. banksiae* Ait. 'Lutea'
- 4 Flowers white.....(5)
- 4 Flowers yellow or pink.....(7)

- 5 Stipules about half free, persistent; petals slightly wider at base.....*R. pseudobanksiae* T. T. Yu et T. C. Ku var. *alba* Y. Y. Yang et L. Luo
- 5 Stipules free, caducous; petals narrower at base.....(6)
- 6 Branches, petioles, and rachises armed with prickles.....*R. banksiae* Ait. var. *normalis* Regel
- 6 Branches, petioles, and rachises unarmed.....*R. banksiae* Ait. var. *inermis* Y. Y. Yang et L. Luo
- 7 Flowers yellow, slightly fragrant.....*R. banksiae* Ait. f. *lutescens* Voss.
- 7 Flowers pink, slightly fragrant.....*R. pseudobanksiae* T. T. Yu et T. C. Ku var. *pseudobanksiae*
- 8 Stipules free, lanceolate, papery, caducous.....(9)
- 8 Stipules free, lanceolate, sub-leathery, with one vein, margins with glandular teeth, persistent.....*R. cymosa* Tratt. var. *dapanshanensis* F. G. Zhang
- 9 Branchlets unarmed.....*R. cymosa* Tratt. var. *inermis* Y. Y. Yang et L. Luo
- 9 Branchlets armed with prickles.....(10)
- 10 Leaflets glabrous on both surfaces, or pubescent when young, later glabrescent.....*R. cymosa* Tratt. var. *cymosa*
- 10 Branches and both surfaces of leaflets densely pubescent, partially deciduous later.....*R. cymosa* Tratt. var. *puberula* T. T. Yu et T. C. Ku
- Sect. *Synstylae* DC.**
- 1 Stipules of young leaves comb-like lobed, varying from depth and size (e.g., pectinate, irregularly comb-like dentate, sparsely comb-like dentate) (2).....**Ser. *Multiflorae* T. T. Yu et T. C. Ku**
- 1 stipules of young leaves entire, margins often with glandular trichomes, glands, or pubescence, which are deciduous over time, leaving smooth margins (27).....**Sect. *Soulieanae* L. Luo et Y. Y. Yang**
- 2 Stipules of young leaves pectinate, margins often glandular or pubescent.....(3)
- 2 Stipules of young leaves irregularly comb-like dentate or sparsely comb-like dentate, rarely pectinate.....(13)
- 3 Leaflets glabrous or pubescent on both surfaces, margins not deeply serrate; flowers white or pink.....(4)
- 3 Leaflets glabrous on both surfaces, margins deeply serrate; flowers pink.....*R. langyashanica* D. C. Zhang. et J. Z. Shao
- 4 Leaflets 1~3 cm long, glabrous on both surfaces or pubescent along veins abaxially.....(5)
- 4 Leaflets 3~5 cm long, pubescent abaxially.....(6)
- 5 Flowers white.....*R. lucieae* Franchet et Rochebrune var. *lucieae* (*R. uniflorella* Buzunova, *R. daishanensis* T. C. Ku, *R. shangchengensis* T. C. Ku)
- 5 Flowers pink.....*R. lucieae* var. *rosea* H. L. Li
- 6 Petals broadly obovate; hips subglobose; leaflets often obovate to ovate.....(7)
- 6 Petals narrowly obovate; hips ovoid, ellipsoid, or obovoid; leaflets often elliptic, ovate, or lanceolate.....(11)
- 7 Flowers single.....(8)
- 7 Flowers double.....(10)
- 8 Peduncles and pedicels densely covered with needle-like prickles.....*R. multiflora* Thunb. var. *spinosa* Y. Y. Yang et L. Luo
- 8 Peduncles and pedicels without needle-like prickles, may have glandular trichomes.....(9)
- 9 Leaflets pubescent on both surfaces.....*R. multiflora* Thunb. var. *pubescens* Y. Y. Yang et L. Luo
- 9 Leaflets glabrous adaxially, pubescent abaxially.....*R. multiflora* Thunb. var. *cathayensis* Rehder et E. H. Wilson
- 10 Flowers white, double; leaflets pubescent or sparsely pubescent.....*R. multiflora* Thunb. 'Bai Yu Tang' (*R. miyiensis* T. C. Ku, *R. kunmingensis* T. C. Ku)
- 10 Flowers pink, double; leaflets glandular and pubescent on both surfaces.....*R. multiflora* Thunb. 'Maoye Fentuan' (*R. multiflora* var. *nanningensis*)
- 11 Leaflet margins singly serrate, glandular abaxially.....(12)

- 11 Leaflet margins mostly doubly serrate, often without glands abaxially.....*R. helenae* Rehder et E. H. Wilson f. *duplicata* T. C. Ku
- 12 Leaflets glandular abaxially.....*R. helenae* Rehder et E. H. Wilson f. *glandulifera* T. C. Ku
- 12 Leaflets not glandular abaxially (rachises may be sparsely glandular).....*R. helenae* Rehder et E. H. Wilson f. *helenae*
- 13 Margins of young stipules with conspicuously glandular and pubescent.....(14)
- 13 Margins of young stipules not conspicuously glandular or pubescent.....(20)
- 14 Leaflets 7~9, margins singly serrate, nearly glabrous on both surfaces; flowers white or pink.....(15)
- 14 Leaflets 5~7(9), margins singly or doubly serrate, more or less pubescent abaxially; flowers white.....(17)
- 15 Leaflets ovate or oblong; styles glabrous; hips ovoid.....*R. maximowicziana* Regel.
- 15 Leaflets elliptic to ovate; styles pubescent; hips ovoid or subglobose.....(16)
- 16 Flowers white.....*R. pricei* Hayata var. *pricei*
- 16 Flowers pink or pale pink.....*R. pricei* Hayata var. *rosea* (H. L. Li) L. Y. Hung
- 17 Leaflets margins singly serrate.....(18)
- 17 Leaflets margins singly or partially doubly serrate.....*R. filipes* Rehder et E. H. Wilson
- 18 Styles pubescent.....(19)
- 18 Styles glabrous or nearly so.....*R. transmorrisonensis* Hayata f. *transmorrisonensis*
- 19 Leaflets oblong-elliptic to elliptic, 0.5~5 cm long, usually glabrous adaxially, pubescent along veins abaxially; hips subglobose.....*R. taiwanensis* Nakai
- 19 Leaflets elliptic, 4~6 cm long, glabrous or sparsely pubescent adaxially, pubescent abaxially; comb-like appendages on stipule margins partially fall off with age; hips ovoid subglobose.....*R. brunonii* Lindl.
- 20 Leaflets 3~5 (mostly 3), ovate or lanceolate, apex acuminate; flowers pink or pinkish-white.....*R. anemoniflora* Fort. ex Lindl. var. *anemoniflora*
- 20 Leaflets 5~7~9; flowers white, rarely pink.....(21)
- 21 Leaflets 7(9), margins doubly serrate, apex acute or cuspidate, sparsely pubescent adaxially, densely glandular abaxially and marginally.....*R. ludingensis* T. C. Ku
- 21 Leaflets margins singly serrate.....(22)
- 22 Leaflets 5~7~9, glabrous on both surfaces.....(23)
- 22 Leaflets 5~7(9), glabrous or sparsely pubescent adaxially, densely pubescent abaxially.....(25)
- 23 Leaflets mostly 5, elliptic, 8~10 cm long, apex caudate or acute, midveins distinctly sunken adaxially, midveins and lateral veins prominent abaxially; comb-like appendages on stipule margins short, deciduous with age.....*R. lasiosepala* Metcalf
- 23 Leaflets 7~9, elliptic, 6~7 cm long, apex caudate or acuminate; styles pubescent.....(24)
- 24 Flowers 10 more in corymbose cymes, terminal on branchlets.....*R. longicuspis* Bertol. var. *longicuspis*
- 24 Flowers 30 or more, in compound corymbs.....*R. longicuspis* Bertol. var. *sinowilsonii* (Hemsl.) T. T. Yu et T. C. Ku
- 25 Leaflets 5~7, ovate, 3~4 cm long, veins not conspicuously sunken adaxially.....(26)
- 25 Leaflets 5~7, ovate or elliptic, 6~7 cm long, veins conspicuously sunken adaxially.....*R. glomerata* Rehder et E. H. Wilson
- 26 Flowers white.....*R. kwangtungensis* T. T. Yu et H. T. Tsai var. *kwangtungensis*
- 26 Flowers pink.....*R. kwangtungensis* T. T. Yu et H. T. Tsai f. *roseoliflora* Y. B. Chang et Y. L. Xu
- 27 Erect shrubs; leaflets 5~7, small, ovate or elliptic, apex obtuse or truncate, glabrous adaxially, glabrous or sparsely glandular abaxially, margins doubly serrate, often with glandular tips.....*R. duplicata* T. T. Yu et T. C. Ku (*R. weisiensis* T. T. Yu et T. C. Ku, *R. deqenensis* T. C. Ku)
- 27 Shrubs or vines; leaflets margins singly serrate or mostly so.....(28)
- 28 Loose shrubs; leaflets 7~9, papery.....(29)
- 28 Climbing shrubs; leaflets 3~5, leathery or nearly leathery.....(32)
- 29 Abaxial leaflet surfaces and rachises pubescent.....*R. soulieana* Crép. var. *yunnanensis* Schneid.
- 29 Abaxial leaflet surfaces and rachises glabrous.....(30)
- 30 Leaflets smaller, 1~2 cm long; flowers often solitary or 2~10 in cymes.....*R. soulieana* Crép. var. *microphylla* T. T. Yu et T. C. Ku (*R. derongensis* T. C. Ku)
- 30 Leaflets larger, 2.5~4 cm long, inflorescence corumbose-shaped.....(31)
- 31 Leaflets larger, 3~3.5 cm long.....*R. soulieana* Crép. var. *sungpanensis* Rehder
- 31 Leaflets smaller, 2.5~3 cm long.....*R. soulieana* Crép. var. *soulieana*
- 32 Leaflets 3~5, highly variable in shape, nearly leathery; veins not conspicuously sunken adaxially; hips obovate.....*R. sambucina* var. *pubescens* Koidz (*R. henryi* Boulenger)
- 32 Leaflets mostly 5, ovate or elliptic, leathery, veins conspicuously sunken adaxially; hips subglobose.....(33)
- 33 Leaflets eglandular.....*R. rubus* H. Lév. et Vaniot f. *rubus*
- 33 Leaflets densely glandular abaxially.....*R. rubus* H. Lév. et Vaniot f. *glandulifera* T. T. Yu et T. C. Ku

Sect. *Chinenses* DC. ex Ser.

- 1 Climbing or loose shrubs; leaflets 3~5 (7); flowers white, yellow, purplish-red or red, sepals often reflexed after anthesis; hips ovoid, obovoid, or subglobose (2).....**Ser. *Chinensesae* L. Luo et Y. Y. Yang**
- 1 Climbers, young branches glabrous; leaflets 5~9 (usually 7); flowers white, pale yellow or pink, sepals reflexed or spreading after anthesis; hips globose or depressed-globose, occasionally obovoid or pyriform (9)..**Ser. *Odoratae* L. Luo et Y. Y. Yang**
- 2 Climbing shrubs, young branches pubescent or glandular, glabrescent with age; leaflets mostly 3, occasionally 5, ovate.....(3)
- 2 Loose shrubs, young branches glabrous; leaflets mostly 5, rarely 3 or 7, elliptic.....(4)
- 3 Flowers pinkish-white when newly opened, ageing to deep red.....*R. lucidissima* H. Lév. var. *lucidissima*
- 3 Flowers red when newly opened, then becoming dark scarlet.....*R. lucidissima* H. Lév. var. *coccinea* Y. Y. Yang et L. Luo
- 4 Leaflets usually no more than 5.....(5)
- 4 Leaflets 5~7(9).....*R. chinensis* Jacq. var. *multijuga* Y. Y. Yang et L. Luo
- 5 Leaflets 3~5, often 3 near flowers.....(6)
- 5 Leaflets usually 5.....(7)

- 6 Leaflets glabrous on both surfaces; flowers pale red when newly opened, ageing to red.....*R. chinensis* Jacq. var. *spontanea*(Rehder et E. H. Wilson) T. T. et T. C. Ku
- 6 Young leaflets sparsely pubescent adaxially, densely pubescent; flowers creamy yellow when newly opened, gradually turning pale pink, then pink.....*R. chinensis* Jacq. var. *pubescens* Y. Y. Yang et L. Luo
- 7 Leaves glossy, glabrous; petals 5, deep red when newly opened, ageing to dark scarlet.....*R. chinensis* Jacq. var. *coccinea* Y. Y. Yang et L. Luo
- 7 Leaves glossy, glabrous; flowers not deep red to dark scarlet.....(8)
- 8 Petals 5 or 5~7, pinkish white, often with pink shades at base.....*R. chinensis* Jacq. var. *persicina* Y. Y. Yang et L. Luo
- 8 Petals 5, light pink when newly opened, with deeper-colored bases and tips, becoming light magenta in full bloom.....*R. chinensis* Jacq. var. *erubescens* Y. Y. Yang et L. Luo
- 9 Leaflets 5~9, glabrous abaxially; flowers whitish, pink, or yellow, usually solitary or in clusters of 2~3.....(10)
- 9 Leaflets 5~7, often pubescent along veins abaxially; flowers white, colors stable after opening, 1~4 in cymes.....(14)
- 10 Flowers pinkish, changing color after opening.....(11)
- 10 Flowers white or yellow.....(12)
- 11 Flowers pale pink when newly opened, fading to white, 6~8 cm in diameter.....*R. odorata* (Andr.) Sweet var. *normalis* L. Luo et Y. Y. Yang
- 11 Flowers creamy white when newly opened, often turning to pink, 10~12 cm in diameter.....*R. yangii* L. Luo
- 12 Flowers creamy white or pale yellow, darker when newly opened, fading to white; hips subglobose.....*R. gigantea* Coll. ex Crép. f. *gigantea*
- 12 Flowers yellow, apricot or orange; hips obovoid or pyriform.....(13)
- 13 Flowers apricot, fading to paler gradually.....*R. gigantea* Coll. ex Crép. f. *armeniaca* L. Luo et Y. Y. Yang
- 13 Flowers orange.....*R. gigantea* Coll. ex Crép. f. *pseudindica* (Lindl.) Rehder
- 14 Flowers pure white*R. funingensis* L. Luo et Y. Y. Yang f. *funingensis*
- 14 Flowers with salmon coloration, or fading from salmon to white.....(15)
- 15 Leaflets small, 1.5~2 cm long; flowers salmon fading to white..... *R. funingensis* L. Luo et Y. Y. Yang f. *parvifolia* L. Luo
- 15 (Leaflets of typical size); Flowers light salmon.....*R. funingensis* L. Luo et Y. Y. Yang f. *rosea* L. Luo et Y. Y. Yang