

## 11. SCUTELLARIA Linnaeus, Sp. Pl. 2: 598. 1753.

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Herbs or subshrubs, rarely shrubs, not aromatic. Leaves entire to pinnatifid. Inflorescences terminal or axillary racemes or spikes; floral leaves usually bractlike apically. Flowers axillary, opposite or sometimes alternate apically. Calyx short tubular, dorsiventrally flattened, 2-lipped; lips entire, closed and ultimately divided to base along sutures in fruit; upper lip deciduous, with a transverse, rounded, concave, scalelike scutellum (shield) or without and abaxially conspicuously saccate; lower lip persistent. Corolla 2-lipped; tube exerted, arcuate or suberect, gradually widening to throat, base bent and saccate or spurred, usually puberulent annulate outside; upper lip erect, galeate; lower lip 3-lobed, middle lobe broad, flattened, entire, lateral lobes ± joined to upper lip and sometimes spreading. Stamens 4, didynamous, anterior 2 longest, underlying upper lip; anthers close together in pairs, bearded on cell aperture; posterior pair conspicuously 2-celled, ± apically acute, anterior pair 1-celled by abortion. Style subulate, apically unequally 2-cleft. Nutlets oblate, globose, to ovoid.

About 350 species: worldwide, but only a few in tropical Africa; 98 species in China.

A very isolated genus with unsatisfactory traditional divisions. Paton (Kew Bull. 45: 399–450. 1990) has proposed a revised classification of *Scutellaria* but did not deal with a large number of the Chinese taxa, and it is not possible to utilize his divisions in detail.

- 1a. Inflorescences crowded 4-sided spikes; flowers opposite and decussate, subtended by specialized, membranous or submembranous, sessile, hoodlike bracts ..... *Key 7*
- 1b. Inflorescences 1-sided or rarely partly spiral, often poorly defined; flowers subtended by leaves or leaflike bracts.
  - 2a. Upper lip of calyx convex, lacking a scutellum; nutlets gray-black, with hairs longer than 0.5 mm ..... 98. *S. kingiana*
  - 2b. Upper lip of calyx with a sail-like scutellum; nutlets of various colors, glabrous or with hairs shorter than 0.5 mm.
  - 3a. Apical flowers often ± spiral; nutlets with acuminate papillae terminating in a ring of hooks; inflorescences terminal, often ± scapose; bracts minute, herbaceous ..... 1. *S. discolor*
  - 3b. Flowers erect, opposite; nutlets variously ornamented, mostly lacking hooked papillae; inflorescences robust and/or lateral, never scapose; bracts leaflike.
  - 4a. Flowers in terminal racemes or spikes ± sharply differentiated from the vegetative part of the stem, mostly subtended by reduced bractlike leaves.
    - 5a. Stem leaves conspicuously petiolate, almost 2× as long as wide, mostly obscurely dentate or rarely entire; bracts entire, short petiolate, unlike stem leaves; plants subshrubs or erect or rarely ascending herbs lacking enlarged rhizomes ..... *Key 1*
    - 5b. Stem leaves sessile or short petiolate, more than 2× as long as wide, dentate-serrate, crenate, to entire; bracts ± similar to stem leaves, gradually reduced toward stem apex; plants erect or ascending-erect perennial herbs with an enlarged and often woody rootstock/rhizome ..... *Key 4*
  - 4b. Flowers in axillary racemes or, if terminal, most flowers subtended by normal leaves and with a gradual transition from these to bracts.
    - 6a. Flowers mainly in axillary racemes or on lateral branches; plants much branched herbs ..... *Key 5*
    - 6b. Flowers axillary, secund, mostly on main axis; plants perennial, mostly erect herbs.
      - 7a. Nutlets inconspicuously differentiated into adaxial and abaxial sides, tuberculate ..... *Key 6*
      - 7b. Nutlets conspicuously differentiated into adaxial and abaxial sides, abaxially tuberculate, adaxially spiny or smooth, with or without a membranous wing on equatorial plane.
        - 8a. Nutlets tuberculate abaxially, adaxially smooth and conical, with an apical umbo; rhizomes with long leafless stolons at nodes; stems densely spreading pilose ..... 96. *S. tuberifera*
        - 8b. Nutlets densely tuberculate abaxially, adaxially densely spiny around a cylindrical central umbo; rhizomes without stolons; stems glabrous to sparsely pilose apically ..... 97. *S. guilielmii*

### Key 1

- 1a. Corolla less than 1 cm.
  - 2a. Leaves herbaceous, triangular, 0.7–1.7×0.8–1.8 cm, sparsely strigose, densely strigose along midvein abaxially ..... 44. *S. tienchueanensis*
  - 2b. Leaves membranous, narrowly triangular-ovate to oblong, 1.3–3×0.8–3.2 cm, sparsely white pilose ..... 45. *S. tenera*
- 1b. Corolla more than 1 cm.
  - 3a. Corolla tube straight, not zigzag.
    - 4a. Stem leaves membranous to papery, margin conspicuously dentate; corolla 1.4–2 cm ..... *Key 3*
    - 4b. Stem leaves ± leathery, rarely papery, shallowly undulate-serrate to subentire on apical 2/3; corolla (1.5–)2–3 cm.
      - 5a. Leaves less than 2 cm, adaxially corrugate; plants prostrate herbs on rocks ..... 8. *S. playfairii*
      - 5b. Leaves to more than 2 cm, not corrugate; plants tall herbs or subshrubs ..... *Key 2*
  - 3b. Corolla tube zigzag.
    - 6a. Plants with dense, spreading or upwardly curved gray to yellowish hirsute hairs ..... 40. *S. mairei*
    - 6b. Plant with different types of hairs.
      - 7a. Stem leaves 1.5–3×1.1–2.4 cm, triangular to triangular-ovate, shallowly dentate to incised-dentate ..... 41. *S. tenax*
      - 7b. Stem leaves to more than 3×2.4 cm, ovate to ovate-cordate, regularly crenulate.

- 8a. Stems and leaves white pubescent; corolla rose, to 2.3 cm ..... 43. *S. tapintzeensis*  
 8b. Stems and leaves white pilose; corolla blue-purple, 1.2–1.5 cm ..... 42. *S. teniana*

**Key 2**

- 1a. Rachis and pedicels of inflorescence subglabrous or finely pubescent.  
 2a. Blade ovate to elliptic-lanceolate, apex acuminate to caudate-acuminate; corolla dark purple or blue.  
 3a. Herbs to 1 m tall; leaves (4–)6–8-undulate-dentate; corolla dark purple, to 3.1 cm ..... 2. *S. javanica*  
 3b. Herbs ca. 30 cm or more tall; leaves 3- or 4-undulate-serrate; corolla blue, ca. 2.5 cm ..... 4. *S. formosana*  
 2b. Blade ovate to subcircular, apex acute to obtuse; corolla cream-white or white tinged with purple.  
 4a. Inflorescences many flowered, to 13 cm; bracts narrowly oblong to narrowly lanceolate, 0.5–1 mm wide ..... 7. *S. luzonica*  
 4b. Inflorescences few flowered, ca. 6 cm at anthesis; bracts ovate-lanceolate to lanceolate, more than 2.5 mm wide.  
 5a. Blade broadly ovate to subcircular, 2.5–5×1.8–4.3 cm, adaxially sparsely puberulent, abaxially densely puberulent, 4–6-undulate-crenate, lateral veins 3-paired; inflorescences many flowered; flowers crowded ca. 2 cm; calyx ca. 2.8 mm ..... 3. *S. hainanensis*  
 5b. Blade ovate, 2–3.8×1–2.2 cm, subglabrous, 3- or 4-crenate, lateral veins 2-paired; inflorescences few flowered; flowers widely spaced, ca. 1.6 cm; calyx to 5 mm ..... 6. *S. oligophlebia*  
 1b. Rachis and pedicels of inflorescence glandular.  
 6a. Petiole of stem leaf 0–4 mm ..... 5. *S. tsinyunensis*  
 6b. Petiole of stem leaf more than 7 mm.  
 7a. Leaves elliptic-ovate to obovate or subcircular, apically rounded to acute, basally cuneate to rounded, conspicuously 3-veined ..... 9. *S. obtusifolia*  
 7b. Leaves elliptic to obovate-elliptic, apically acute to acuminate, basally cuneate, rarely roundish, not 3-veined.  
 8a. Stems and petioles reddish ..... 10. *S. yunnanensis*  
 8b. Stems and petioles not reddish.  
 9a. Leaf venation conspicuously elevated ..... 13. *S. reticulata*  
 9b. Leaf venation inconspicuously elevated.  
 10a. Stem leaf blade abaxially densely puberulent; bracts linear, shorter than pedicels; corolla 2.6–2.9 cm, lateral lobes of lower lip ovate; gynophore ca. 0.5 mm ..... 11. *S. mollifolia*  
 10b. Stem leaf blade abaxially glabrous; bracts elliptic, longer than pedicels; corolla ca. 2.2 cm, lateral lobes of lower lip triangular; gynophore inconspicuous ..... 12. *S. sichourensis*

**Key 3**

- 1a. Plants low, ascending or diffuse herbs.  
 2a. Leaves cordate-ovate or circular-ovate to elliptic, apex obtuse to rounded, margin regularly crenate.  
 3a. Plants stoloniferous, ± scapose; leaves initially in a rosette, becoming decussate after elongation of internodes ..... 30. *S. tayloriana*  
 3b. Plants rhizomatous; stem leaves conspicuous.  
 4a. Leaf blade glabrous except along veins abaxially ..... 31. *S. laeteviolacea*  
 4b. Leaf blade hairy.  
 5a. Middle stem leaves 4–6×4–6 cm, densely floccose-pilose, regularly undulate-crenate; terminal inflorescences to 16 cm ..... 32. *S. lutescens*  
 5b. Middle stem leaves 2–2.6×2–2.6 cm, densely puberulent, strigose, or spreading villous, crenulate; terminal inflorescences 4–8(–12) cm ..... 33. *S. indica*  
 2b. Leaves triangular-ovate to rhombic-ovate, apex acute to obtuse, margin dentate to dentate-serrate.  
 6a. Stems and petioles spreading hirtellous ..... 34. *S. taiwanensis*  
 6b. Stems and petioles with upwardly curved pubescence or puberulent.  
 7a. Leaves 5–10×3–7 cm, membranous, sparsely appressed pubescent, remotely coarse dentate ..... 39. *S. megaphylla*  
 7b. Leaves 1.1–3.2(–5.5)×0.8–3.5 cm, herbaceous to ± papery, if membranous then subglabrous, denticulate to dentate-serrate.  
 8a. Corolla 1–1.4 cm.  
 9a. Leaves triangular-ovate to ovate, 1.2–2.4 cm wide, apex acute to obtuse, base subtruncate, roundish or sometimes shallowly cordate ..... 35. *S. pseudotenax*  
 9b. Leaves narrowly ovate to narrowly triangular-ovate, 0.8–1.4 cm wide, apex acute, base widely cuneate to subtruncate ..... 36. *S. yingtakensis*  
 8b. Corolla 1.8–2.2(–2.5) cm.  
 10a. Leaves ovate to rhombic-ovate, base cuneate to subrounded, margin obtusely dentate to coarsely crenate on apical 2/3 ..... 37. *S. inghokensis*  
 10b. Leaves ovate to triangular-ovate, base truncate to truncate-cuneate, margin obtusely dentate to incised-dentate ..... 38. *S. pekinensis*  
 1b. Plants moderate to tall, erect or prostrate herbs.  
 11a. Stems subglabrous, finely pubescent, or puberulent.

- 12a. Leaf blade abaxially blackish or dark purple-black when dry, midvein strigillose.  
 13a. Blade of middle stem leaves ovate, 6–7×3.2–3.5 cm, apex acute, base broadly cuneate; corolla ca. 2.3 cm ..... 14. *S. nigricans*  
 13b. Blade of middle stem leaves cordate, 3–5.5×2.7–3.8 cm, apex obtuse, base cordate; corolla 1.4–1.6 cm ..... 15. *S. nigrocardia*  
 12b. Leaf blade abaxially green or purplish when dry, midvein glabrous or subglabrous.  
 14a. Leaf blade broadly cuneate to roundish at base, shallowly dentate to dentate-serrate at margin; corolla yellowish white to purple-blue.  
 15a. Corolla yellowish white to white; calyx pubescent; stems retrorse pubescent along angles and nodes ..... 19. *S. anhweiensis*  
 15b. Corolla purple-blue; calyx veins and margin sparsely pubescent; stems subglabrous basally, with appressed hairs apically, angles and nodes with hooked retrorse pubescence ..... 20. *S. chekiangensis*  
 14b. Leaf blade ± cordate at base, regularly crenate at margin; corolla red to purplish.  
 16a. Corolla ca. 2.7 cm, inconspicuously saccate at base of tube; calyx sparsely pubescent; rachis of inflorescence finely pubescent ..... 17. *S. wenshanensis*  
 16b. Corolla 2–2.3 cm, conspicuously saccate at base of tube; calyx pubescent or glandular puberulent; rachis of inflorescence densely glandular puberulent.  
 17a. Corolla ca. 2.3 cm; stems densely puberulent; leaves membranous, petiole 1.5–3.5 cm, densely puberulent ..... 16. *S. chihshuiensis*  
 17b. Corolla ca. 2 cm; stems subglabrous to glabrous; leaves papery, petiole 0.2–2 cm or more, subglabrous or glabrous ..... 18. *S. violacea*  
 11b. Stems with ± dense, simple or septate hairs.  
 18a. Corolla spurred in front at base, spur ca. 2.5 mm, decurrent ..... 29. *S. calcarata*  
 18b. Corolla conspicuously or inconspicuously saccate in front at base.  
 19a. Leaf base rounded, sometimes shallowly cordate.  
 20a. Leaves broadly ovate, 4–7.5 cm, coarsely or sometimes double crenate to coarsely crenate-serrate.  
 21a. Leaf blade obtuse at apex, rounded to shallowly cordate at base, coarsely or sometimes double crenate at margin, adaxially sparsely pilose, abaxially densely pilose; petiole densely spreading pilose ..... 21. *S. grossecrenata*  
 21b. Leaf blade acute at apex, broadly cuneate to roundish at base, coarsely mucronate crenate-serrate at margin, densely hirtellous along veins otherwise sparsely hirtellous; petiole densely puberulent ..... 22. *S. yangbiensis*  
 20b. Leaves lanceolate-oblong to ovate, 1.7–6 cm, irregularly nearly double serrate to regularly crenate.  
 22a. Leaves lanceolate-oblong to lanceolate-ovate, 3–6×1–2 cm, irregularly nearly double serrate; corolla ca. 1.5 cm ..... 23. *S. laxa*  
 22b. Leaves ovate, 1.7–4×0.8–2.5 cm, regularly crenate; corolla (2–) 2.6–2.9 cm ..... 24. *S. macrosiphon*  
 19b. Leaf base conspicuously cordate.  
 23a. Stems with dense, upwardly curved pubescence ..... 25. *S. meehanioides*  
 23b. Stems with ± dense, spreading hairs.  
 24a. Corolla 1–1.2 cm; leaves ovate to oblong-ovate; fascicled fibrous rootlets slightly swollen at middle ..... 26. *S. microviolacea*  
 24b. Corolla 1.6–1.8 cm; leaves cordate or triangular-ovate; fascicled fibrous rootlets not swollen.  
 25a. Leaves triangular-ovate, middle stem leaves to 6×4 cm, apex acute, base cordate to subtruncate, crenate-serrate or sometimes double crenate-serrate, densely puberulent; plants densely puberulent and glandular hairy throughout ..... 27. *S. caryopteroides*  
 25b. Leaves cordate, 1–2.5×1–3 cm, apex acute, base cordate, regularly crenate, densely strigose; plants spreading white hirtellous throughout ..... 28. *S. purpureocardia*

**Key 4**

- 1a. Stem leaves conspicuously, remotely dentate-serrate.  
 2a. Leaves membranous, oblong, 3–5.5×1.3–2 cm, base shallowly truncate-cordate, sparsely white hirsute adaxially and along veins abaxially to subglabrous or glabrous ..... 46. *S. sciaphila*  
 2b. Leaves papery, oblong-ovate to narrowly lanceolate, 2–4×0.8–1.4 cm, base roundish to truncate, puberulent ..... 47. *S. macrodonta*  
 1b. Stem leaves crenate to subentire or entire.  
 3a. Stem leaves ± crenate to crenate-serrate.  
 4a. Corolla yellow-white, yellow, to green-yellow, with tinged purplish spots or lines ..... 48. *S. likiangensis*  
 4b. Corolla purple or purple-blue.  
 5a. Corolla less than 2 cm ..... 49. *S. chungtienensis*  
 5b. Corolla more than 2 cm.  
 6a. Stems and leaves very densely white pilose; leaves broadly ovate to oblong, conspicuously crenate-serrate; corolla 2–3.7 cm ..... 50. *S. forrestii*  
 6b. Stems and leaves subglabrous with recurved or nearly patent puberulent or pilose hairs; leaves

- oblong, folded, inconspicuously crenate to entire above base; corolla 2.4–3 cm ..... 51. *S. amoena*
- 3b. Stem leaves entire or subentire.
  - 7a. Stem leaves of two kinds, lower stem leaves crowded, ovate-lanceolate to ovate, upper stem leaves widely spaced, linear ..... 57. *S. orthocalyx*
  - 7b. Stem leaves homomorphic, upper leaves gradually reduced.
    - 8a. Stems with dense or sparse, recurved or sometimes nearly patent glandular pubescence; leaf surfaces with many yellow glands ..... 53. *S. viscidula*
    - 8b. Stems without glandular pubescence, subglabrous or with variable pubescence; leaves without glands or glandular only abaxially.
      - 9a. Abaxial leaf surface with impressed glands.
        - 10a. Plants (15–)30–120 cm tall; stems subglabrous or with upwardly curved or spreading pubescence; stem leaves lanceolate to linear-lanceolate, 1.5–4.5×(0.2–)0.5–1.2 cm; racemes terminal on stems and branches so that all racemes form a terminal panicle ..... 52. *S. baicalensis*
        - 10b. Plants 10–30 cm tall; stems sparsely spreading, white pilose along angles and bearded on nodes otherwise subglabrous; stem leaves ovate or apical ones sometimes oblong, 2–3.4×0.7–1.4 cm; racemes terminal on stems, not forming a panicle on apical part of plant ..... 55. *S. hypericifolia*
      - 9b. Abaxial leaf surface without impressed glands.
        - 11a. Stems glabrous; leaves 4–5 cm; corolla yellowish white ..... 56. *S. spectabilis*
        - 11b. Stems hairy, at least on angles, hairs spreading or recurved; leaves 1.4–4 cm; corolla rose, purple, to purple-blue ..... 54. *S. rehderiana*

**Key 5**

- 1a. Flowers in axils of mid and upper stem leaves, forming axillary racemes; floral leaves inconspicuous, bractlike, minute.
  - 2a. Leaf blade broadly cuneate to rounded at base, undulate or remotely denticulate at margin, glabrous; corolla creamy yellow ..... 78. *S. delavayi*
  - 2b. Leaf blade cordate to obliquely obovate at base, inconspicuously and remotely crenate at margin, at least adaxially ± hairy; corolla purplish to purple-red.
    - 3a. Leaves sessile or subsessile, blade ovate, 1.9–3.5×0.9–2 cm ..... 76. *S. sessilifolia*
    - 3b. Leaves with petiole 4–7 mm, blade ovate-oblong to oblong-lanceolate, 5–8×2–3.5 cm ..... 77. *S. caudifolia*
- 1b. Flowers in axils of stem leaves and floral leaves of axillary fertile branches, inconspicuously crowded into axillary racemes; floral leaves similar to stem leaves, gradually reduced to bracts.
  - 4a. Plants much branched, all branches fertile; leaves ovate-lanceolate to linear-lanceolate.
    - 5a. Corolla ca. 2 cm; leaves subrhomboid- to ovate-lanceolate, incised-serrate on apical 2/3 ..... 58. *S. incisa*
    - 5b. Corolla ca. 1.3 cm; leaves linear-lanceolate, inconspicuously 1- or 2-undulate-crenate apically ..... 59. *S. subintegra*
  - 4b. Plants few branched, some branches fertile; leaves ovate.
    - 6a. Fertile branches much elongated; flowers inserted in leaf axils; floral leaves similar to stem leaves, reduced.
      - 7a. Leaves subglabrous or very sparsely pubescent.
        - 8a. Leaves 1.2–2.5×0.7–2.1 cm, pubescent and yellow glandular, margin coarsely 1–3-crenate; flowers purple or purple-blue, inserted on abbreviated fertile branches ..... 60. *S. axilliflora*
        - 8b. Leaves to 6.2×ca. 3 cm, subglabrous, abaxially with scattered scarlet glands, margin remotely undulate-crenate; flowers yellowish, inserted on elongated fertile branches ..... 61. *S. lotienensis*
      - 7b. Leaves hirtellous, strigose, or pilose.
        - 9a. Stems with spreading, slightly flaccid, white hirsute hairs.
          - 10a. Plants few branched herbs; leaf base cordate, blade not corrugate; racemes 4–11 cm; scutellum on upper lip of calyx inconspicuously enlarged in fruit, obovate, ca. 2.5×4 mm; corolla tube hairy inside ..... 62. *S. pingbienensis*
          - 10b. Plants much branched subshrubs; leaf base broadly cuneate to roundish, blade slightly corrugate; racemes 7–27 cm; scutellum on upper lip of calyx conspicuously enlarged in fruit, subcircular, ca. 5×5 mm; corolla tube glabrous inside ..... 63. *S. shweliensis*
        - 9b. Stems with upwardly or downwardly curved puberulent, pubescent, or hirtellous hairs.
          - 11a. Leaves 0.9–2.2×0.4–1.4 cm, 2- or 3-crenate ..... 64. *S. wongkei*
          - 11b. Leaves 2–7×(1.3–)1.5–4.6 cm, with many crenations.
            - 12a. Fertile branches less than 10 cm, inflorescences terminal and lateral; leaves triangular-ovate, coarsely dentate or sometimes double dentate ..... 65. *S. hunanensis*
            - 12b. Fertile branches more than 10 cm; inflorescences terminal; leaves ovate, regularly crenate.
              - 13a. Stem leaves 2–5×1.5–3 cm, rounded to truncate at base, sparsely finely strigose; stems sparsely puberulent ..... 66. *S. bambusetorum*
              - 13b. Stem leaves 6.5–7×4–4.6 cm, cordate at base, densely pilose; stems densely, retrorsely yellowish pubescent ..... 67. *S. chimenensis*
    - 6b. Fertile branches short; flowers of basal fertile branches inserted only toward apex; flowers of upper fertile branches inserted along entire length; floral leaves reduced to bracts.
      - 14a. Middle lobe of lower corolla lip equally 4-lobed.

- 15a. Stems conspicuously winged, glabrous except at nodes; leaves ca. 1.5×1.2 cm ..... 70. *S. weishanensis*  
 15b. Stems not winged, white puberulent or white pilose; middle stem leaves ca. 4×2.6 cm ..... 71. *S. quadrilobulata*
- 14b. Middle lobe of lower corolla lip subentire or emarginate.  
 16a. Leaves entire to 3- or 4-dentate at base, apex entire.  
 17a. Leaves 1.5–3(–4.5)×1–2(–2.5) cm, apex acuminate to caudate-acuminate, margin 3- or 4-dentate, base and apex entire; corolla to 2.5 cm, tube ca. 1.5 mm wide at middle, gradually dilated apically, to 5 mm wide at throat ..... 68. *S. franchetiana*  
 17b. Leaves 2–3.5×1.2–1.5 cm, apex acute to subacute, margin ± entire or inconspicuously crenate; corolla 1.8–2 cm, tube ca. 0.7 mm wide, gradually dilated apically, to ca. 4 mm at throat ..... 69. *S. stenosphon*
- 16b. Leaves conspicuously crenate to coarsely double serrate.  
 18a. Stems subglabrous or densely appressed, white pilose on angles, otherwise glabrous; leaves crenate to coarsely double serrate ..... 74. *S. omeiensis*  
 18b. Stems densely puberulent or floccose-pilose with upwardly curved hairs; leaves regularly crenate-serrate to acute-serrate.  
 19a. Stems densely floccose-pilose ..... 72. *S. tenuiflora*  
 19b. Stems with dense, upwardly curved puberulent hairs.  
 20a. Leaves lanceolate-ovate, acute-serrate, abaxially densely purple-red glandular ..... 73. *S. honanensis*  
 20b. Leaves ovate, serrate, abaxially without glands ..... 75. *S. scandens*

**Key 6**

- 1a. Rhizomes moniliform, with enlarged tuberlike internodes; flowers ca. 3.2 cm ..... 88. *S. moniliorrhiza*  
 1b. Rhizomes not moniliform; flowers less than 2.5 cm.  
 2a. Leaves ± hastate.  
 3a. Flowers to 1.3 cm; floral leaves bractlike, unlike stem leaves ..... 84. *S. barbata*  
 3b. Flowers less than 1 cm; floral and stem leaves similar but reduced.  
 4a. Leaves cordate, pilose; calyx pilose, scutellum ca. 0.3 mm; corolla 9–10 mm ..... 83. *S. shansiensis*  
 4b. Leaves ovate-triangular to triangular, adaxial surface and abaxial veins puberulent, margin ciliolate; calyx veins and margin ciliolate, scutellum ca. 1 mm; corolla 5–6.5 mm ..... 82. *S. dependens*
- 2b. Leaves not hastate.  
 5a. Leaves less than 7 mm wide.  
 6a. Flowers to 2.5 cm; leaves densely hairy, adaxially glabrous, or with scattered fine strigose hairs, abaxially glandular except the finely pubescent veins and margin ..... 80. *S. regeliana*  
 6b. Flowers 2–2.2 cm; leaves subglabrous or abaxially sparsely and finely pubescent along veins, minutely yellow glandular ..... 81. *S. linarioides*
- 5b. Leaves more than 7 mm wide.  
 7a. Flowers less than 2 cm; leaf blade abaxially without glands ..... 79. *S. galericulata*  
 7b. Flowers more than 2 cm; leaf blade abaxially glandular.  
 8a. Leaves glabrous, sparsely puberulent, appressed pubescent, or villous ..... 85. *S. scordifolia*  
 8b. Leaves densely hirsute or strigose.  
 9a. Stems with spreading branches from base; leaves usually elliptic, rarely ovate to oblong, apex obtuse to rounded, shallowly dentate to subentire, sometimes serrate, densely hairy; plants of beaches ..... 86. *S. strigillosa*  
 9b. Stems unbranched or few branched; leaves ovate to oblong-ovate, apex acute to subobtusate, acute-serrate, densely hairy; plants of inland areas ..... 87. *S. tuminensis*

**Key 7**

- 1a. Leaf blade abaxially white or gray tomentose.  
 2a. Leaves pinnatifid ..... 90. *S. przewalskii*  
 2b. Leaves pinnately lobed, margin incised-serrate ..... 89. *S. sieversii*
- 1b. Leaf blade abaxially green or gray-green, sparsely or densely erect or floccose-pubescent, sometimes with intermixed glandular hairs.  
 3a. Leaf serrations conspicuous, spreading.  
 4a. Corolla yellow, without purple spots ..... 91. *S. supina*  
 4b. Corolla yellowish, with conspicuous purple spots ..... 92. *S. prostrata*
- 3b. Leaf serrations inconspicuous, always coalescent.  
 5a. Bracts pubescent and glandular along veins and margin, otherwise subglabrous ..... 94. *S. altaica*  
 5b. Bracts spreading pilose and glandular along veins and margin.  
 6a. Stems densely spreading pilose and pubescent throughout; petiole 0.5–1.7 cm; lower floral leaves serrate ..... 95. *S. orthotricha*  
 6b. Stems ± spreading pilose and glandular apically; petiole 0.2–0.5 cm; lower floral leaves entire ..... 93. *S. oligodonta*

**1. *Scutellaria discolor*** Wallich ex Bentham, Pl. Asiat. Rar. 1: 66. 1830.

异色黄芩 *yi se huang qin*

Herbs perennial, rhizomatous. Stems ascending to erect, 5.5–38 cm tall, densely puberulent, reddish, unbranched, apically leafless. Stem leaves in 2–4(–7) pairs; petiole 0.5–2.2(–4.8) cm; leaf blade elliptic-ovate to broadly elliptic, 1.5–7.4×1–4.8 cm, papery, pubescent or hirsute especially on veins, adaxially densely puberulent to hirsute, abaxially green or purplish, base cordate to shallowly cordate, margin undulate-crenate, apex rounded to obtuse. Racemes secund, 5–24 cm; peduncle 2.5–4 cm, densely puberulent; floral leaves sessile to short petiolate, ovate to elliptic, 0.7–2.5×0.5–1.5 cm, base rounded-truncate, apex obtuse; bracts ovate, 1.5–3×ca. 1 mm, pubescent, margin entire. Flowers alternate or opposite. Pedicel purplish, 2.5–3 mm, densely pubescent. Calyx ca. 2 mm, pubescent outside, glandular pubescent; scutellum spreading, semicircular, 0.5–0.8 mm, reflexed, almost as long as calyx in fruit. Corolla purple, glandular pubescent outside, 0.9–1.2 cm; tube 7–10 mm, base bent, gradually dilated to 3 mm wide at throat; limb ca. 3 mm, puberulent or pubescent inside; middle lobe of lower lip ovate-orbicular; lateral lobes ovate to oblong-ovate. Nutlets brown, ovoid-ellipsoid, ca. 1 mm in diam., with acuminate tubercles tipped by a whorl of hooks. Fl. Jun–Nov, fr. Jul–Dec.

Forested hillsides, streamsides, grassy slopes, roadsides; 0–2000 m. Guangxi, Guizhou, Sichuan, Yunnan [Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand, Vietnam].

- 1a. Leaf blade adaxially densely puberulent and pubescent, abaxially pubescent; apical flowers alternate; corolla tube puberulent inside on front at base, otherwise glabrous ..... 1a. var. *discolor*
- 1b. Leaf blade densely hirsute especially on abaxial veins; flowers opposite; corolla tube conspicuously puberulent annulate inside ..... 1b. var. *hirta*

**1a. *Scutellaria discolor* var. *discolor***

异色黄芩 *yi se huang qin*

*Scutellaria salvia* H. Léveillé.

Stem leaf blade adaxially densely puberulent, pubescent, abaxially sometimes purplish, pubescent especially on veins. Flowers alternate near apex of inflorescence. Corolla tube puberulent to pubescent inside on front at base, otherwise glabrous.

• Forested hillsides, streamsides, grassy slopes; 0–1800 m. Guangxi, Guizhou, Yunnan [Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand, Vietnam].

Used as a folk remedy for colds, fevers, sore throats, and enteritis.

**1b. *Scutellaria discolor* var. *hirta*** Handel-Mazzetti, Acta Horti Gothob. 13: 341. 1939.

地盆草 *di pen cao*

Leaves densely hirsute especially on veins of abaxial surface. Flowers opposite. Corolla tube conspicuously puberulent annulate inside.

• Sunny, grassy slopes, roadsides; 2000 m. Sichuan, Yunnan.

**2. *Scutellaria javanica*** Junghuhn, Java 1: 621. 1853.

爪哇黄芩 *zhao wa huang qin*

Herbs perennial, erect, to 1 m tall. Stems finely puberulent or subglabrous. Petiole 0.8–1.2 cm; leaf blade ovate-lanceolate to elliptic-lanceolate, 4–9.5×1.5–4 cm, reduced toward stem apex, ± leathery, adaxially glabrous, abaxially finely puberulent along veins otherwise glandular, lateral veins not extending to margin, base broadly cuneate, margin (4–)6–8-undulate-dentate, apex caudate-acuminate. Racemes secund, terminal, 7–14 cm; bracts lanceolate, 3–6×1–1.25 mm, ciliate, apex acute. Pedicel 5–6 mm, finely puberulent. Calyx 3–3.5 mm, finely puberulent, ciliate; scutellum semicircular, 2–2.5 mm, ca. 4.5 mm in fruit. Corolla dark purple, to 3.1 cm; tube ca. 2.5 cm, bent at base, gradually dilated above middle to 8 mm wide at throat, puberulent outside, villous on basal 1/4 inside; limb glabrous inside, upper lip erect, broadly triangular-ovate, ca. 9 mm wide, base abruptly constricted; lower lip spreading, ovate-orbicular; lateral lobes triangular, ca. 2.5 mm wide. Nutlets unknown. Fl. Apr–May.

• Grasslands near forests; 1200 m. Hainan [Indonesia, Philippines].

**3. *Scutellaria hainanensis*** C. Y. Wu, Fl. Hainan. 4: 532. 1977.

海南黄芩 *hai nan huang qin*

Herbs perennial, puberulent, with woody rhizomes and stem bases. Stems ca. 60 cm tall, with adventitious roots at base, ascending, 1- or 2-branched, densely puberulent, basal internodes longer than leaves. Petiole 6–9 mm; leaf blade broadly ovate to subcircular, 2.5–5×1.8–4.3 cm, ± leathery, adaxially sparsely puberulent, abaxially purplish and densely puberulent, base broadly cuneate to shallowly cordate, margin 4–6-undulate-crenate or entire, apex obtuse to acute. Racemes terminal, ca. 6 cm; bracts sessile, ovate-lanceolate, 3–5 mm, densely pubescent, apex acute. Pedicel ca. 4 mm, densely pubescent. Calyx ca. 2.8 mm, densely puberulent; scutellum spreading, semicircular, ca. 2.2 mm. Corolla cream-white, ca. 2 cm; tube ca. 1.6 cm, bent at base, gradually dilated above middle to 7 mm wide at throat, puberulent outside, villous on basal 1/4 inside; upper lip erect, broadly triangular-ovate, ca. 5.5 mm wide, base slightly constricted, apex obtuse; middle lobe of lower lip spreading, ovate-orbicular, base ca. 5 mm wide, emarginate; lateral lobes ovate, ca. 3 mm wide. Nutlets unknown. Fl. Oct.

• Rocky mountainous areas. Hainan.

**4. *Scutellaria formosana*** N. E. Brown, Gard. Chron., ser. 3, 16: 212. 1894.

蓝花黄芩 *lan hua huang qin*

Herbs perennial. Rhizomes ± woody. Stems ca. 30 cm tall, ascending, rooting at basal nodes, few branched or simple, subglabrous or densely pubescent, purplish. Petiole 0.8–1.2 cm, subglabrous, glandular; leaf blade ovate to ovate-lanceolate, 3–8×1.5–3.3 cm, ± leathery, adaxially shiny, abaxially sometimes tinged purple, glabrous to sometimes densely pubescent especially abaxially, dotted, base broadly cuneate, margin 3- or 4-undulate-serrate, apex obtuse to acuminate. Racemes opposite, terminal, 7–17 cm; bracts narrowly rhombic, ca. 2 mm, pubescent. Pedicel ca. 4 mm, densely pubescent. Calyx ca. 3 mm, ca. 4 mm. in fruit, pubescent outside, glandular; scutellum spreading, semicircular, to 2 mm. Corolla blue, ca. 2.5 cm, glandular

puberulent outside; tube ca. 2 cm, base bent, throat to 6 mm wide, villous near base inside; upper lip triangular-ovate, ca. 8 mm wide; middle lobe of lower lip subcircular, ca. 4.5 mm in diam., emarginate; lateral lobes ovate, ca. 3 mm wide. Nutlets tuberculate. Fl. Aug-Sep, fr. Oct-Nov.

• Shady areas in forests; 500–900 m. Fujian, Guangdong, Guangxi, Hainan, Jiangxi, Yunnan.

- 1a. Stems and leaves subglabrous ..... 4a. var. *formosana*  
1b. Stems and leaves, especially abaxially, densely pubescent ..... 4b. var. *pubescens*

#### 4a. *Scutellaria formosana* var. *formosana*

蓝花黄芩 lan hua huang qin

Stems subglabrous. Leaves glabrous, dotted or sometimes sparsely pubescent along veins abaxially.

• Shady areas in forests; 500–900 m. Fujian, Guangdong, Hainan, Jiangxi, Yunnan.

#### 4b. *Scutellaria formosana* var. *pubescens* C. Y. Wu & H. W. Li, Fl. Hainan. 4: 532. 1977.

多毛变种 duo mao bian zhong

Stems pubescent. Leaves densely pubescent especially abaxially.

• Forests. Guangxi, Hainan.

#### 5. *Scutellaria tsinyunensis* C. Y. Wu & S. Chow, Fl. Reipubl. Popularis Sin. 65(2): 577. 1977.

缙云黄芩 jin yun huang qin

*Scutellaria yunnanensis* H. Léveillé var. *subsessilifolia* Sun ex C. H. Hu.

Herbs perennial. Rhizomes trailing, rooting from internodes. Stems dark purple, erect, 30–60 cm tall, with antrorse pubescent hairs on angles, otherwise subglabrous. Petiole 1–4 mm; leaf blade of basal leaves circular to ovate, base subcordate, apex acute; blade of upper leaves ovate-lanceolate to lanceolate, 4–8×1.5–3.5 cm papery, glabrous, finely pubescent along veins, base roundish to shallowly cordate, margin remotely undulate-denticulate, apex caudate to caudate-acuminate, abaxially sometimes slightly purplish, veins finely pubescent. Racemes secund, terminal, 8–10 cm; peduncle 2–3 cm; bracts sessile, narrowly lanceolate, 1–1.5 mm, glabrous, deciduous. Pedicel ca. 3 mm, densely pubescent, glandular puberulent. Calyx ca. 2.5 mm, densely pubescent, glandular puberulent; scutellum spreading, ca. 1.7 mm. Corolla white with red to purple on limb, 1.7–1.9 cm, puberulent outside; tube bent at base, to 5 mm wide at throat, sparsely pilose at bent base inside; middle lobe of lower lip triangular-ovate, base ca. 4 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets unknown. Fl. Apr-May.

• Shady areas in forests; 700–800 m. Sichuan (Ba Xian).

#### 6. *Scutellaria oligophlebia* Merrill & Chun ex H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 577. 1977.

少脉黄芩 shao mai huang qin

Herbs perennial. Stems ca. 34 cm tall, erect, leafless basally, rooting from basal nodes, branched apically; branches finely pubescent. Petiole 3.5–6 mm, finely pubescent; leaf blade ovate, 2–3.8×1–2.2 cm, ± leathery, densely finely pubescent, soon subglabrous, base cuneate, margin remotely

3- or 4-crenate, apex acute. Racemes terminal, 4–6.5 cm; bracts sessile, lanceolate, 6.5–8×2.5–3.5 mm, pubescent or subglabrous, margin entire. Pedicel 3–4 mm, densely pubescent. Calyx to 5 mm, pubescent outside; scutellum spreading, semicircular, ca. 2 mm. Corolla white purplish, to 1.6 cm, densely puberulent outside; tube ca. 1.3 cm, suberect, slightly saccate at base; middle lobe of lower lip ovate, base ca. 3.5 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets unknown. Fl. Apr.

• Open roadsides. Guangdong (Raoping Xian).

#### 7. *Scutellaria luzonica* Rolfe var. *lotungensis* C. Y. Wu & C. Chen, Fl. Hainan. 4: 532. 1977.

乐东黄芩 le dong huang qin

Herbs perennial. Stems to 35 cm tall, erect, subterete, base ca. 1.5 mm in diam., densely antrorse puberulent, long branched. Petiole 4–10 mm; leaf blade ovate, 1.2–3.2×0.8–2 cm, papery, pubescent, base truncate-cuneate to subrotund, margin remotely 2–4-dentate, with antrorse ciliate hairs, apex obtuse. Racemes terminal, 2.5–9(–13) cm, subsessile, often ± grouped into panicles; bracts subsessile, narrowly oblong to narrowly lanceolate, 2–3 ×0.5–1 mm, pubescent, basally attenuate, margin entire, apically obtuse. Pedicel ca. 4 mm, densely puberulent. Calyx ca. 1.8 mm, ca. 4 mm in fruit, pubescent; scutellum ca. 1.5 mm. Corolla unknown. Nutlets dark blackish brown, ovoid, ca. 1×0.8 mm, tuberculate, adaxially concave, umbonate. Fr. Jul-Dec.

• Shady areas in dense forests. Hainan (Ledong Xian).

#### 8. *Scutellaria playfairii* Kudô, Mem. Fac. Sci. Taihoku Imp. Univ. 2: 254. 1929.

伏黄芩 fu huang qin

Herbs perennial. Stems trailing, 15–30 cm tall, 1–2 mm in diam., densely antrorse pubescent, very rarely subglabrous, branches flexuous. Petiole 2–4 mm; leaf blade ovate to subcircular, 0.9–1.6×0.7–1.5 cm, ± leathery, base shallowly cordate to subtruncate, apex rounded. Racemes terminal, 4–6.5(–20) cm, glandular hairy; bracts elliptic to broadly ovate, 2–3 mm, base attenuate, margin entire to shallowly serrate, apex obtuse. Pedicel 2–3 mm, hairy. Calyx ca. 2 mm, to 3 mm in fruit; scutellum ca. 0.5 mm, to 2.5 mm in fruit, glandular hairy. Corolla 2–2.6 cm, puberulent outside, pubescent on lower lip inside; tube slightly bent, ca. 2.5 mm wide at throat; middle lobe of lower lip circular-ovate, slightly constricted at sides, apex rounded; lateral lobes oblong, ca. 1/2 as long as middle lobe. Nutlets ovoid, ca. 1×less than 1 mm, tuberculate, adaxially concave, umbonate on central part. Fl. and fr. Oct.

• Rocky areas. Taiwan.

- 1a. Leaf blade adaxially strigose-hirsute; abaxially densely yellowish puberulent ..... 8a. var. *playfairii*  
1b. Leaf blade adaxially glabrous; abaxially with sparse, appressed hairs ..... 8b. var. *procumbens*

#### 8a. *Scutellaria playfairii* var. *playfairii*

伏黄芩 fu huang qin

*Scutellaria procumbens* Ohwi var. *tomentosa* Ohwi.

Leaf blade adaxially strigose-hirsute, abaxially densely yellowish puberulent.

- Rocky areas. Taiwan.

**8b. *Scutellaria playfairii* var. *procumbens*** (Ohwi) C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 146. 1977.

少毛变种 shao mao bian zhong

*Scutellaria procumbens* Ohwi, Repert. Spec. Nov. Regni Veg. 36: 52. 1934.

Leaf blade adaxially glabrous, veins sparsely appressed pilose abaxially.

- Taiwan.

**9. *Scutellaria obtusifolia*** Hemsley, J. Linn. Soc., Bot. 26: 296. 1890.

钝叶黄芩 dun ye huang qin

Herbs perennial, rhizomatous. Stems 20–60 cm tall, ascending, ± woody and leafless at base, unbranched, densely pubescent. Leaves elliptic to obovate or subcircular, 2–8×1.3–3.5 cm, ± leathery, adaxially glabrous or very sparsely pubescent, abaxially densely gray pubescent, 3-veined at base, whitish along veins abaxially, base cuneate-attenuate to rounded, margin entire to inconspicuously few crenate or 4–8-undulate-dentate, apex obtuse to acuminate. Racemes terminal, 4–18 cm; bracts rhombic-obovate, to slightly longer than pedicel, puberulent. Pedicel 4 mm, glandular puberulent. Calyx ca. 2.5 mm, ca. 4 mm in fruit, glandular puberulent; scutellum open, semicircular, ca. 1.8 mm, to 5 mm in fruit, conspicuously veined. Corolla purple or purple-blue, 2–3 cm, sparsely puberulent; tube 2–2.3 cm, bent at base, throat to 7 mm wide; upper lip ovate, ca. 5 mm wide; middle lobe of lower lip subcircular, ca. 4.5 mm in diam., apex emarginate; lateral lobes ovate, ca. 3 mm wide. Nutlets tuberculate. Fl. May–Jun, fr. Jun–Jul.

- Forests, thickets, rice paddy margins, streamsides; 600–2500 m. Guangxi, Guizhou, Hubei, Sichuan.

- 1a. Leaves 2–5.5 cm, apex obtuse to rounded, base cuneate to rounded, entire to inconspicuously crenate; corolla 2.6–3 cm ..... 9a. var. *obtusifolia*  
 1b. Leaves 3–8 cm, apex acute, base cuneate-attenuate, remotely undulate-dentate; corolla 2–2.5 cm ..... 9b. var. *trinervata*

**9a. *Scutellaria obtusifolia* var. *obtusifolia***

钝叶黄芩 dun ye huang qin

Leaves elliptic-ovate to obovate, sometimes subcircular, 2–5.5 cm, base cuneate to rounded, margin entire to inconspicuously crenate, apex obtuse to rounded. Corolla 2.6–3 cm.

- Forests, thickets, rice paddy margins. Guizhou, Hubei, Sichuan.

Used medicinally for bacterial dysentery and colds.

**9b. *Scutellaria obtusifolia* var. *trinervata*** (Vaniot) C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 147. 1977.

三脉变种 san mai bian zhong

*Scutellaria trinervata* Vaniot, Bull. Acad. Int. Géogr. Bot. 14: 189. 1904; *S. vaniotiana* H. Léveillé ex Dunn.

Leaves elliptic to rhombic-elliptic, 3–8 cm, base cuneate-attenuate, margin remotely undulate-dentate, apex acute. Corolla 2–2.5(–3) cm.

- Streamsides; 600–2500 m. Guangxi, Guizhou.

**10. *Scutellaria yunnanensis*** H. Léveillé, Repert. Spec. Nov. Regni Veg. 9: 221. 1911.

红茎黄芩 hong jing huang qin

Herbs perennial, rhizomatous. Stems 25–50 cm tall, erect, 1.2–2 mm in diam., reddish, subglabrous or slightly pubescent, few branched. Leaves 4-paired; petiole 7–12 mm, reddish, glandular pubescent; leaf blade dark reddish green abaxially, narrowly oblong to ovate, 3–11×1–4.5 cm, glabrous, abaxially with dense, small, impressed glands, base cuneate to rounded, margin sparsely denticulate to subentire or shallowly 2–6-serrate, apex acuminate to short acuminate. Racemes terminal, axillary, 9–15 cm; peduncle 2.5–3.5 cm; bracts reduced. Pedicel 2–2.5 mm, densely puberulent and glandular pubescent. Calyx purple-red, ca. 2 mm, to 3 mm in fruit, puberulent; scutellum spreading, semicircular, ca. 1.5 mm, to 4 mm in fruit. Corolla limb purple-red, 1.5–1.7 cm, puberulent outside; tube reddish or white, 1–1.2 cm, base bent, to 4 mm wide at throat; lateral lobes of lower lip ovate, ca. 3 mm wide, apically emarginate. Nutlets triquetrous, ovoid, ca. 0.75×0.5 mm, dark brown, tuberculate, adaxially elevated, umbonate on central part. Fl. Apr, fr. May.

- Forested hillsides, thickets; 500–1600 m. Guizhou, Sichuan, Yunnan.

- 1a. Leaves ovate to elliptic-ovate, 2–4.5 cm wide.  
 2a. Leaves inconspicuously denticulate to subentire, base rounded ..... 10a. var. *yunnanensis*  
 2b. Leaves sometimes shallowly 2–6-serrate, base cuneate ..... 10b. var. *cuneata*  
 1b. Leaves oblong to lanceolate, 1–1.6 cm wide ..... 10c. var. *salicifolia*

**10a. *Scutellaria yunnanensis* var. *yunnanensis***

红茎黄芩 hong jing huang qin

Leaves ovate to elliptic-ovate, 2–4.5 cm, base rounded, margin inconspicuously denticulate to subentire.

- Forested hillsides; 900–1200 m. Sichuan, Yunnan.

Used medicinally for fever and nebula.

**10b. *Scutellaria yunnanensis* var. *cuneata*** C. Y. Wu & W. T. Wang, Fl. Yunnan. 1: 543. 1977.

楔叶变种 xie ye bian zhong

Leaves ovate to elliptic-ovate, 2–4.5 cm wide, base cuneate, margin sometimes shallowly 2–6-serrate.

- Broad-leaved hillside forests; 1000 m. Yunnan.

**10c. *Scutellaria yunnanensis* var. *salicifolia*** Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 43. 1966.

柳叶变种 liu ye bian zhong

Leaves narrowly oblong to lanceolate, 1–1.6 cm wide, base cuneate, margin entire to shallowly 2–4-serrate.

- Hillsides, thickets; 500–1600 m. Guizhou, Sichuan.

**11. *Scutellaria mollifolia*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 578. 1977.

毛叶黄芩 *mao ye huang qin*

Herbs perennial, rhizomatous. Stems 35–45(–60) cm tall, erect, unbranched, ca. 3 mm in diam., densely pubescent apically. Leaves ca. 5-paired; petiole 1.5–3 cm; leaf blade obovate-elliptic, 7–11×3.5–5.2 cm, pubescent, densely so and gray-green abaxially, base cuneate, margin inconspicuously undulate-serrate to entire, apex acute. Racemes terminal, 10–16 cm; bracts linear, 3–4 mm, pubescent. Pedicel 4–5 mm, densely pubescent. Calyx ca. 3 mm, puberulent; scutellum spreading, ca. 2.2 mm. Corolla reddish; tube 2.1–2.3 cm, base bent, throat to 8 mm wide; lower lip with red spots, 2.6–2.9 cm, puberulent outside; middle lobe triangular ovate, base ca. 3.5 mm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide. Nutlets unknown. Fl. May–Jun.

- Shady areas in forests; 1200 m. Sichuan (Emei Shan).

**12. *Scutellaria sichouensis*** C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 543. 1977.

西畴黄芩 *xi chou huang qin*

Herbs perennial, rhizomatous. Stems 40–80 cm tall, ascending, ca. 2 mm in diam., rust pubescent, glandular, sometimes subglabrous, corky toward base. Petiole 1–1.6 cm; leaf blade elliptic to obovate-elliptic, 5–9×2.5–4 cm, yellowish glandular, adaxially sparsely pubescent, densely so along margin, abaxially gray or purplish and glabrous, base cuneate, margin undulate-crenate, apex acute. Racemes terminal, 4.5–7.5 cm; peduncle ca. 1.4 cm; bracts sessile, elliptic, 4–4.5(–7) mm, margin entire to sparsely serrate above middle, glandular, ciliate. Pedicel ca. 3 mm, densely glandular pubescent. Calyx ca. 2 mm, glandular outside, margin ciliate; scutellum spreading, ca. 1 mm. Corolla purplish or purple-red, ca. 2.2 cm, sparsely puberulent, glandular; tube ca. 1.6 cm, base bent, throat to 6 mm wide; middle lobe of lower lip oblate, ca. 5 mm wide, apex emarginate; lateral lobes triangular, ca. 2.5 mm wide. Nutlets unknown. Fl. Apr.

- Wet broad-leaved forests on limestone; 1400–1700 m. Yunnan (Xichou Xian).

**13. *Scutellaria reticulata*** C. Y. Wu & W. T. Wang, Fl. Reipubl. Popularis Sin. 65(2): 578. 1977.

显脉黄芩 *xian mai huang qin*

Subshrubs. Stems semiterete, ca. 2 mm in diam., glabrous. Petiole 3–10 mm; leaf blade oblong, 6.5–18×2.6–8.2 cm, glabrous, minor veins conspicuously netted, base cuneate, margin entire to 1- or 2-undulate-denticulate above middle, apex acuminate to subcaudate-acuminate. Racemes ca. 16 cm; peduncle ca. 1.5 cm; bracts sessile, elliptic, ca. 2 mm, ciliate, apically acuminate, deciduous. Pedicel 1–1.5 mm, spreading glandular puberulent. Calyx ca. 2 mm, sparsely glandular puberulent, ciliate; scutellum spreading, ca. 2 mm. Corolla purple, ca. 1.5 cm, sparsely puberulent outside, base bent, throat to 5 mm wide, glabrous inside; middle lobe of lower lip triangular-ovate, base ca. 2.5 mm wide, apex emarginate; lateral lobes ovate, ca. 1.5 mm wide. Nutlets unknown. Fl. May.

- Forests. Guangxi.

**14. *Scutellaria nigricans*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 578. 1977.

变黑黄芩 *bian hei huang qin*

Herbs rhizomatous. Stems 15–40 cm tall, erect-ascending, glabrous, base purplish. Mid stem leaves petiolate; petiole 0.5–3.5 cm; leaf blade ovate, 6–7×3.2–3.5 cm, basal blades blackish when dry, ca. 1/2 as large, herbaceous, adaxially finely strigose on midrib otherwise sparsely strigose, abaxially glabrous, base broadly cuneate, margin remotely 6–8-callose-dentate, apex acute. Racemes terminal, ca. 11 cm; bracts rhombic, 2–3 mm, glabrous, margin entire. Pedicel ca. 2.5 mm, densely glandular puberulent. Calyx ca. 2.5 mm, densely glandular puberulent outside; scutellum ca. 0.75 mm. Corolla purple or purplish blue, ca. 2.3 cm, pubescent outside, glabrous inside; tube straight, base slightly saccate, throat to 4 mm in diam.; middle lobe of lower lip spreading, triangular, to 6.5 mm wide, base abruptly constricted, margin undulate; lateral lobes ovate, ca. 2.5 mm wide. Nutlets unknown. Fl. Apr–Jun.

- Forests; 700 m. Sichuan (Nanchuan Xian).

**15. *Scutellaria nigrocardia*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 578. 1977.

黑心黄芩 *hei xin huang qin*

Herbs rhizomatous. Stems 28–35 cm tall, erect, glabrous except for pubescent angles, purple-black when dry. Petiole of mid stem leaves 1.5–4 cm; leaf blade dark purple-black abaxially, cordate, 3–5.5×2.7–3.8 cm, herbaceous, sparsely white strigose, abaxially light colored and glabrous, veins finely pubescent, base cordate, margin crenate, apex obtuse. Racemes terminal and axillary, 4.5–12 cm; bracts oblanceolate, slightly longer than pedicel, sparsely ciliate. Pedicel 1.5–2.5 mm, densely pubescent. Calyx ca. 2 mm, glandular puberulent; scutellum ca. 1 mm. Corolla 1.4–1.6 cm, puberulent outside, tube straight, base slightly saccate, throat to 4 mm wide; middle lobe of lower lip spreading, triangular-ovate, ca. 3 mm wide, margin entire; lateral lobes oblong, ca. 2 mm wide. Nutlets unknown. Fl. Apr.

- Guangdong (Yingde Xian).

**16. *Scutellaria chihshuiensis*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 579. 1977.

赤水黄芩 *chi shui huang qin*

Herbs rhizomatous. Stems 35–50 cm tall, erect, densely white puberulent, purple-brown. Petiole 1.5–3.5 cm; leaf blade ovate to ovate-oblong, 4–6.5×2.5–4 cm, membranous, densely strigose, base shallowly cordate, margin coarsely crenate, apex obtuse to acute. Racemes terminal and axillary 4.5–13 cm; bracts obovate, ca. 4×3 mm, sparsely white puberulent, basally cuneate, margin entire, apically rounded. Pedicel ca. 4 mm, densely white glandular puberulent. Calyx ca. 1.5 mm, ca. 3 mm in fruit, glandular puberulent outside; scutellum ca. 2 mm, to 5 mm in fruit. Corolla ca. 2.3 cm, puberulent outside; tube straight, base slightly saccate, throat to 5 mm wide; middle lobe of lower lip spreading, ca. 7 mm wide, purple spotted inside, semicircular, apex emarginate; lateral lobes oblong, ca. 3.5 mm wide. Nutlets unknown. Fl. May.

- Forests. Guizhou (Chihshui Xian).

**17. *Scutellaria wenshanensis*** C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 543. 1977.

文山黄芩 *wen shan huang qin*

Herbs rhizomatous. Stems ca. 30 cm tall, erect-ascending, purplish, finely pubescent, unbranched. Petiole ca. 1 cm; leaf blade ovate, 1.8–3.5×1.2–2 cm, herbaceous or papery, very sparsely fine strigose, abaxially sometimes purplish, veins densely whitish pubescent, base shallowly cordate, apex acute. Racemes terminal, ca. 8 cm; bracts short petiolate, ovate, ca. 6 mm, margin entire. Pedicel purplish, ca. 3 mm, finely pubescent. Calyx ca. 4 mm, very sparsely pubescent outside, slightly dilated after flowering; scutellum ca. 2.5 mm, to 4 mm in fruit. Corolla purplish, ca. 2.7 cm, glandular puberulent outside, tube base inconspicuously saccate, throat to ca. 4 mm wide; middle lobe of lower lip triangular-oblate, ca. 6×8 mm, apex emarginate, purple spotted; lateral lobes ovate, ca. 4.5 mm wide, apex emarginate. Nutlets unknown. Fl. May.

• Ravines in broad-leaved evergreen forests; 1900 m. Yunnan (Wenshan Xian).

**18. *Scutellaria violacea*** Heyne ex Benth. var. ***sikkimensis*** J. D. Hooker, Fl. Brit. India 4: 668. 1885.

紫苏叶黄芩 *zi su ye huang qin*

*Scutellaria coleifolia* H. Léveillé.

Herbs perennial. Stems 25–60 cm tall, erect, glabrous to subglabrous, purplish, mostly branched; mid stem internodes ca. 1.5× as long as leaves, shortened apically. Petiole 0.4–2 cm; leaf blade ovate, to 3.8(–6)×2.3(–3) cm, papery, glabrous or subglabrous, abaxially with purple spots, base cordate to subcordate, margin subequally 6–10-crenate, apex acute to short acuminate. Racemes terminal, often on lateral branches, 5–11 cm; bracts leaflike basally, ovate apically, ca. 5 mm. Pedicel ca. 3 mm, purplish, densely glandular puberulent. Calyx ca. 2 mm, ca. 4 mm in fruit, puberulent outside; scutellum spreading, semicircular, ca. 2×2 mm, purple-red and ca. 5.5×4.8 mm in fruit. Corolla red, ca. 2 cm, sparsely pubescent, finely scaly on lobes of lower lip; tube sparsely puberulent below lower lip, conspicuously saccate, base bent, throat ca. 4.5 mm wide; middle lobe of lower lip trapeziform, spreading, to 7 mm wide, apex emarginate; lateral lobes oblong, ca. 2.5 mm wide. Nutlets reniform, ca. 1.7 mm, black, tuberculate, adaxially umbonate at middle. Fl. Jun-Jul, fr. Ju1-Aug.

• Pine forests, grassy slopes; 1900–3200 m. Sichuan, Yunnan [India (Sikkim)].

**19. *Scutellaria anhweiensis*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 579. 1977.

安徽黄芩 *an hui huang qin*

*Scutellaria huangshanensis* X. W. Wang & Z. W. Xue.

Herbs perennial. Stems ca. 60 cm tall, base ca. 3 mm in diam., retrorsely pubescent on angles and nodes, few branched apically. Petiole 0.5–2 cm; leaf blade ovate, 4.8–6.8×2.5–4 cm, papery, pubescent with scattered golden yellow glands at least on abaxial surface, base broadly cuneate, margin shallowly dentate to crenate-serrate, apex acute. Racemes terminal, to 16 cm; bracts sessile, narrowly ovate, ca. 7 mm apically, margin entire. Pedicel 2–2.5 mm, retrorsely pubescent. Calyx ca. 3.5 mm, retrorsely pubescent; scutellum ca. 2 mm. Corolla yellowish white or white, 2.7–3.5 cm, pubescent; tube 2.2–2.9 cm, base bent, throat to 6 mm wide; middle lobe of lower lip triangular-ovate, ca. 5 mm

wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide. Nutlets unknown. Fl. Jun.

• Hilly areas; 900 m. Anhui.

**20. *Scutellaria chekiangensis*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 579. 1977.

浙江黄芩 *zhe jiang huang qin*

Herbs perennial, rhizomatous. Stems 20–55 cm tall, erect, base ca. 2 mm wide, dark purple when dry, subglabrous below middle, sparsely antrorse hooked pubescent on angles and nodes. Petiole 5–12 mm; leaf blade ovate to elliptic-ovate, 6–7.2(–8)×2.5–4 cm, densely golden glandular, adaxially glabrous to very sparsely pubescent, abaxially sparsely pubescent on midrib and veins, base rounded to broadly cuneate, margin shallowly dentate, apex acute. Racemes terminal, (6–)8–11.5(–16) cm; bracts subsessile, basal ones oblong, 1.2–2 cm, margin few denticulate, apical ones ca. 1 cm, narrower, margin entire. Pedicel ca. 2.5 cm. Calyx ca. 4 mm, to 7 mm in fruit, veins and margin pubescent; scutellum ca. 2.5 mm, to ca. 5 mm in fruit. Corolla purple-blue, 2.5–2.7 cm, glandular pubescent; tube ca. 1.8 cm, base bent, throat to 5.5 mm wide; middle lobe of lower lip triangular ovate, ca. 5 mm wide; lateral lobes ovate, ca. 2.5 mm wide. Nutlets brown, ovoid-ellipsoid, ca. 1.5×1.25 mm, tuberculate, adaxially umbonate at middle. Fl. May, fr. Jun.

• Shady areas in broad-leaved evergreen forests. Sichuan, Zhejiang.

**21. *Scutellaria grossecrenata*** Merrill & Chun ex H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 579. 1977.

粗齿黄芩 *cu chi huang qin*

Herbs erect, rhizomatous. Stems ca. 55 cm tall, ascending, base ca. 2.5 mm wide, densely white pilose, sometimes with short leafy branchlets. Petiole 1–1.8 cm; leaf blade broadly ovate, 5–7×2.5–4.5 cm, papery, adaxially sparsely pilose, abaxially pilose and with purple-black glands, veins whitish, base rounded to shallowly cordate, margin coarsely crenate to double crenate, apex obtuse. Racemes terminal or axillary; bracts deciduous. Pedicel ca. 2 mm, densely pilose. Calyx ca. 2 mm, to 3 mm in fruit, densely pilose; scutellum ca. 1.5 mm in fruit. Corolla purple-red, 1.6–1.9 cm, sparsely puberulent outside, sparsely pilose at middle inside, base bent, throat to 4 mm wide; middle lobe of lower lip broadly ovate, ca. 3.5 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets unknown. Fl. May.

• Forests. Guangdong (Ruyuan Yao Xian).

**22. *Scutellaria yangbiense*** H. W. Li, Novon 3: 157. 1993.

荨麻叶黄芩 *qian ma ye huang qin*

*Scutellaria urticifolia* C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 545. 1977, non Juzepczuk & Vvedensky (1954).

Herbs rhizomatous. Stems ca. 60 cm tall, erect, sparsely white pubescent. Petiole 1–2 cm; leaf blade ovate, 4–7.5×3–4.5 cm, papery, sparsely white hirtellous, densely so along midrib and veins, base broadly cuneate to rounded, rarely cordate, margin coarsely crenate-dentate, apex acute. Racemes terminal or subterminal, 12–20 cm; bracts sessile, rhombic-ovate, 2–5 mm, puberulent. Pedicel to 4 mm, densely white glandular puberulent. Calyx ca. 2 mm, to 5 mm in fruit, glandular pubescent; scutellum ca. 2 mm, to 5 mm in fruit.

Corolla purple, 1.5–2 cm, glandular puberulent outside, glabrous inside, base bent; middle lobe of lower lip triangular-ovate, to 4.5 mm wide, base abruptly constricted, apex emarginate; lateral lobes ca. 2 mm wide. Nutlets dark brown, ovoid, ca. 1 mm in diam., tuberculate, adaxially umbonate at middle. Fl. Jul, fr. Aug.

- Pine forests, thickets; 1100–2100 m. Yunnan (Yangbi Xian).

**23. *Scutellaria laxa*** Dunn, Notes Roy. Bot. Gard. Edinburgh 8: 166. 1913.

散黄芩 san huang qin

Herbs rhizomatous. Stems decumbent, flexuous ascending, densely pubescent except for angles. Petiole 1–1.5 cm; leaf blade lanceolate-oblong to lanceolate-ovate, 3–6×1–2 cm, herbaceous, sparsely strigose, base subrounded, margin irregularly double serrate, apex acuminate. Racemes terminal, 6–17 cm; bracts sublanceolate-ovate, as long as pedicels. Pedicel ca. 3 mm, densely glandular pubescent. Calyx ca. 2 mm, ca. 3.5 mm in fruit; scutellum semicircular, ca. 1.5 mm, to 3 mm and conspicuously reflexed in fruit. Corolla purplish, ca. 1.5 cm, initially finely pubescent outside, soon becoming subglabrous; tube bent at base, ca. 4 mm wide at throat; middle lobe of lower lip subcircular, base constricted, apex emarginate; lateral lobes ovate. Nutlets unknown. Fl. Mar–Apr.

- Evergreen forests; 2000–2600 m. Yunnan.

**24. *Scutellaria macrosiphon*** C. Y. Wu, Fl. Yunnan. 1: 547. 1977.

长管黄芩 chang guan huang qin

Herbs perennial, rhizomatous. Adventitious roots slightly swollen. Stems to 60 cm tall, ascending-erect, sparsely hirtellous, purplish, much branched. Petiole 0.7–1.5 cm; leaf blade ovate, 1.7–4×0.8–2.5 cm, herbaceous, sparsely strigose, base rounded, margin 6–9-crenate-serrate, apex acute. Racemes terminal, 5–13 cm; bracts ± leaflike, rhombic-ovate, 0.6–1.5 cm including petiole, margin 1- or 2-crenate-serrate, apically acute. Pedicel to 4.5–5(–6) mm, hairs glandular. Calyx ca. 3.5 mm, to 4 mm in fruit, densely glandular puberulent; scutellum ca. 2 mm, to 4 mm in fruit. Corolla rose to purplish, (2–)2.6–2.9 cm, glandular puberulent outside, glabrous except for sparsely puberulent throat inside; tube nearly straight, base slightly bent, throat to 5 mm wide; middle lobe of lower lip triangular-ovate, to 6 mm wide, base constricted, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide. Nutlets unknown. Fl. May–Dec.

- Evergreen forests; 1800–2200 m. Yunnan (Jinping Xian).

**25. *Scutellaria meehanioides*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 579. 1977.

龙头黄芩 long tou huang qin

Herbs perennial. Stems erect, ca. 2 mm wide, densely antrorse pubescent, internodes much longer than leaves. Petiole 7–10 mm; leaf blade ± triangular, 1.7–3.3×2–2.5 cm, ± papery, appressed pubescent, base shallowly cordate, margin 5–9-crenate-dentate, apex obtuse. Racemes terminal, to 9.5 cm; bracts petiolate, lanceolate, 3–4 mm, basally sessile, linear, ca. 2 cm, densely pubescent. Pedicel ca. 2 mm, densely glandular puberulent. Calyx ca. 4 mm, densely glandular puberulent outside; scutellum spreading, ca. 2 mm. Corolla purple, 2.3–2.7 cm, sparsely glandular puberulent outside, glabrous inside; tube straight, base slightly bent,

throat to 5 mm wide; middle lobe of lower lip broadly triangular-ovate, to 7 mm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide. Fl. Jun.

- Slopes, roadsides; 500–1500 m. Gansu, Hubei, Shanxi.

1a. Leaves narrowly triangular to triangular-ovate, 7–9-crenate-serrate; corolla to 2.7 cm

..... 25a. var. *meehanioides*

1b. Leaves triangular to triangular-lanceolate, coarsely 5–7-incised-dentate; corolla ca. 2.3 cm

..... 25b. var. *paucidentata*

**25a. *Scutellaria meehanioides* var. *meehanioides***

龙头黄芩 long tou huang qin

Leaves narrowly triangular to triangular-ovate, margin 7–9-crenate-serrate. Corolla to 2.7 cm.

- Slopes, roadsides; 500–1200 m. Hubei, Shanxi.

**25b. *Scutellaria meehanioides* var. *paucidentata*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 580. 1977.

少齿变种 shao chi bian zhong

Leaves triangular to triangular-lanceolate, margin coarsely 4- or 5-incised-dentate. Corolla ca. 2.3 cm.

- Slopes; 1500 m. Gansu (Hui Xian).

**26. *Scutellaria microviolacea*** C. Y. Wu, Fl. Yunnan. 1: 548. 1977.

小紫黄芩 xiao zi huang qin

Herbs. Adventitious roots slightly swollen at middle. Stems ca. 45 cm tall, erect, densely pubescent, sometimes also pilose, leafless basally; branched apically. Petiole 1–3 cm; leaf blade circular to oblong-ovate, 2.5–6.5×1.7–4 cm, ± papery, sparsely villous, midrib and veins pubescent, base shallowly cordate to truncate, margin crenate, apex acute. Racemes terminal or subterminal 10–12 cm; bracts linear, ca. 2.5 mm, pubescent. Pedicel ca. 3 mm, densely glandular puberulent. Corolla red-purple, 1–1.2 cm, glandular puberulent outside, finely puberulent at throat inside, tube saccate geniculate at base, throat to 2.5 mm wide; middle lobe of lower lip triangular-ovate, ca. 3 mm wide, constricted on both sides, apex emarginate; lateral lobes ovate, ca. 1 mm wide. Nutlets unknown. Fl. Aug.

- *Cunninghamia* forests; 1400–1500 m. Yunnan (Xichou Xian).

**27. *Scutellaria caryopteroides*** Handel-Mazzetti, Oester. Bot. Z. 85: 219. 1936.

蕨状黄芩 you zhuang huang qin

Herbs perennial. Stems robust, 80–100 cm tall, erect, to 4 mm in diam., apically densely glandular puberulent. Mid stem leaves petiolate; petiole 0.5–3.5 cm; leaf blade triangular-ovate, to 6×4 cm, ± papery, densely puberulent especially on midrib and lateral veins abaxially, base cordate to subtruncate, margin crenate-serrate to double crenate-serrate, apex acute. Racemes terminal, 6–15 cm. Pedicel 2–3 mm, densely glandular puberulent. Calyx ca. 2 mm in flower; scutellum ca. 1 mm. Corolla dark purple, ca. 1.6 cm, sparsely glandular puberulent outside, glabrous inside, base bent, saccate, throat to 4 mm wide; middle lobe of lower lip triangular-ovate, ca. 4 mm wide, apex emarginate; lateral lobes ovate, ca. 1.5 mm wide. Nutlets unknown. Fl. Jun–Jul, fr. Jun–Aug.

• Riverbanks, open grassy slopes; 800–1500 m. Henan, Hubei, Shaanxi.

**28. *Scutellaria purpureocardia*** C. Y. Wu, Fl. Yunnan. 1: 548. 1977.

紫心黄芩 *zi xin huang qin*

Herbs perennial, rhizomatous. Stems 30–80 cm tall, erect, subterete and subglabrous basally, densely white hirtellous and much branched apically. Petiole 0.5–1.5 cm; leaf blade cordate, 1–2.5×1–3 cm, herbaceous to ± papery, sparsely strigose, densely so along veins, abaxially with red glands, base cordate, margin 4–7-crenate, apex acute to obtuse. Racemes terminal, 6–12 cm; bracts narrowly ovate, 2.5–4 mm, lower ones to 1.5 cm. Pedicel to 4 mm, densely glandular white hirtellous. Calyx ca. 3 mm, ca. 4 mm in fruit, white hirtellous outside; scutellum ca. 1.5 mm, ca. 3.5 mm, netted in fruit. Corolla purple-blue, ca. 1.8 cm, sparsely puberulent outside, glabrous inside; tube base slightly saccate geniculate, throat to 4 mm wide; middle lobe of lower lip subcircular, base abruptly constricted, apex emarginate, spotted on middle; lateral lobes ovate. Nutlets unknown. Fl. Jun.

• Forests; 600–2100 m. Yunnan (Fengqing Xian).

**29. *Scutellaria calcarata*** C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 550. 1977.

囊距黄芩 *nang ju huang qin*

Herbs rhizomatous. Stems to 30 cm tall, erect, ca. 1.5 mm wide, densely white puberulent, branched basally. Petiole 1.5–2.5 cm; leaf blade cordate, 2.3–4×1.8–3.5 cm, herbaceous, sparsely fine strigose, base cordate, margin 4–7-callose-crenate, apex acute. Racemes terminal, 5–14 cm; bracts sessile, ovate to rhombic-ovate, ca. 3 mm, leaflike basally. Pedicel ca. 2.5 mm, densely white glandular puberulent. Calyx ca. 2.5 mm, to 4 mm in fruit, densely white puberulent outside; scutellum ca. 1 mm, to 3.5 mm in fruit. Corolla purple-red, ca. 2 cm, densely white glandular puberulent outside, glabrous inside; tube bent, straight, base with a spur ca. 2.5 mm, throat to ca. 5 mm; middle lobe of lower lip triangular-ovate, to 6.5 mm wide, base constricted, apex emarginate; lateral lobes ovate, ca. 3 mm wide. Nutlets unknown. Fl. Sep.

• Streamsides, evergreen forest margins; 2700 m. Yunnan (Dayao Xian).

**30. *Scutellaria tayloriana*** Dunn, Notes Roy. Bot. Gard. Edinburgh 8: 166. 1913.

偏花黄芩 *pian hua huang qin*

*Scutellaria tayloriana* Dunn var. *polytricha* Handel-Mazzetti.

Herbs perennial, sometimes with trailing rhizomes. Stems 8–30 cm tall, erect to ascending, 1.2–2.5 mm in diam., white villous, base ± woody. Leaves in 3 or 4 pairs, in a rosette initially; mid stem leaves petiole 1–5 cm; leaf blade elliptic to ovate-elliptic, 4.5–5.5×3.8–4.5 cm, papery, orange glandular, white strigose especially on veins, base cordate to rounded, margin shallowly undulate-crenate, apex rounded to obtuse. Racemes terminal, secund, 7–15 cm; peduncle 1–4.5 cm; bracts sessile, gradually narrowed toward inflorescence apex, ovate, ca. 4×2 mm, margin entire. Pedicel ca. 2 mm, villous. Calyx ca. 2.5 mm, densely pubescent. Corolla

purplish to purple-blue, (1.5–)1.8–2.5(–3) cm, bent at base, to 6 mm wide at throat, sparsely puberulent outside, partly glabrous inside; middle lobe of lower lip semicircular; lateral lobes ovate. Nutlets unknown. Fl. Mar–May.

• Thickets, forests, open areas. Guangdong, Guangxi, Guizhou, Hunan.

Used medicinally for coughs, hemoptysis, and dysentery.

**31. *Scutellaria laeteviolacea*** Koidzumi, Fl. Austro-Higo, 50. 1931.

光紫黄芩 *guang zi huang qin*

*Scutellaria indica* Linnaeus var. *japonica* (Morren & Decaisne) Franchet & P. A. L. Savatier f. *humilis* Makino; *S. simplex* Migo; *S. ussuriensis* Kudô var. *typica* f. *humilis* Kudô.

Herbs rhizomatous perennials. Stems purplish 9–20(–30) cm tall, erect to ascending, ca. 1.5 mm in diam., finely antrorse pubescent, unbranched or branched basally. Leaves in 3 or 4 pairs, ± apically crowded, basal ones deciduous; petiole 1–2 cm, longest basally, short to almost absent apically; leaf blade triangular-ovate to circular-ovate, to 4×3 cm, papery, adaxially glabrous, abaxially purplish, glabrous, without glands, veins finely pubescent, base rounded, broadly cuneate to shallowly cordate, margin crenate, apex rounded. Racemes terminal, 3.5–9 cm; bracts purplish, narrowly rhombic to ovate, 2–3.5 mm. Pedicel ca. 1.5 mm, densely glandular puberulent. Calyx ca. 2.5 mm, dilated and to 5 mm in fruit, densely glandular puberulent; scutellum ca. 1.5 mm, to 3 mm in fruit. Corolla red-purple or purple, 1.5–2 cm, sparsely puberulent outside, bent at base, pilose, to 5 mm wide at throat; middle lobe of lower lip ovate, apex emarginate, purple spotted; lateral lobes oblong. Nutlets dark chestnut brown, ovoid, ca. 0.7 mm, tuberculate, adaxially umbonate near base. Fl. Mar–Apr, fr. Apr–May.

• Grassy slopes, thickets. Anhui, Jiangsu [Japan].

**32. *Scutellaria lutescens*** C. Y. Wu, Fl. Yunnan. 1: 550. 1977.

淡黄黄芩 *dan huang huang qin*

Herbs perennial. Stems to 55 cm tall, erect, base to 2.5 mm in diam., densely white floccose-pilose, unbranched or apical axils with short fertile branches, internodes longer than leaves. Leaves 4-paired, basal leaves smaller; petiole 0.8–2.5 cm; leaf blade triangular to ovate, mostly 2.2–6×1.7–6 cm, ± membranous to herbaceous, densely white floccose-pilose, abaxially intermixed with yellowish glands, base shallowly cordate to truncate, margin coarsely undulate-crenate, apex rounded to subacute. Racemes terminal, 3–16 cm; bracts sessile, oblong, 4–6×1.5–2 mm, base attenuate, apex obtuse, ciliate. Pedicel ca. 2.5 mm, densely white pilose. Calyx ca. 2.5 mm, to 5 mm in fruit, sparsely fine pilose; scutellum semicircular, spreading, ca. 2 mm, erect, to 5 mm in fruit. Corolla yellowish when dry, 1.4–1.6 cm, sparsely glandular puberulent outside, subglabrous inside; tube straight, bent at base, to 3.5 mm wide at throat; middle lobe of lower lip triangular-ovate, to 5 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets brownish, ovoid, ca. 0.75×0.5 mm, tuberculate, adaxially umbonate at middle.

• Rocky, mountainous areas; 2700 m. Yunnan.

**33. *Scutellaria indica*** Linnaeus, Sp. Pl. 2: 600. 1753.

韩信草 han xin cao

Shrubs perennial. Stems dark purple, 1 to few, 8–28 cm tall, ascending-erect, ca. 1–1.2 mm in diam., hairy especially on angles and apex. Petiole 0.4–1.4(–2.8) cm; leaf blade 0.8–2.6(–3)×0.8–2.3 cm, base truncate to cuneate, margin crenate, apex rounded to acute. Racemes terminal, 2–8(–12) cm; bracts sessile, 3–6×1–2.5 mm, margin entire, basal ones leaflike, ovate, to 1.7 cm, puberulent, margin crenate. Pedicel 2.5–3 mm, puberulent. Calyx ca. 2.5 mm, hirsute, puberulent; scutellum ca. 1.5 mm, erect, dilated to 3 mm in fruit. Corolla blue-purple, 1–1.8 cm, sparsely puberulent outside, pubescent on lips inside, to ca. 4.5 mm wide at throat; middle lobe of lower lip dark purple spotted, circular-ovate, slightly constricted at middle, apex emarginate; lateral lobes ovate. Nutlets chestnut to dark brown, ovoid, ca. 1×less than 1 mm, tuberculate, tubercles acuminate with a minute apical whorl of hooks, adaxially umbonate near base. Fl. and fr. Feb–Jun.

Hillsides, grasslands, open rocky areas, roadsides, sparse forests; to 1500 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Thailand, Vietnam].

- 1a. Stems, petioles, and leaves densely white pilose ..... 33d. var. *elliptica*  
1b. Stems, petioles, and leaves puberulent or strigose.  
2a. Internodes short; leaves crowded apically, circular-ovate to triangular-ovate; inflorescences 2–3.5(–6) cm ..... 33c. var. *subacaulis*  
2b. Internodes elongated; leaves cordate-ovate to elliptic; inflorescences 4–8(–12) cm.  
3a. Leaves cordate-ovate to elliptic, 1.5–2.6(–3)×1.2–2.3 cm; corolla 1.4–1.8 cm .. 33a. var. *indica*  
3b. Leaves cordate-ovate to ovate, 0.8–1.5×0.8–1 cm; corolla 1–1.5 cm ..... 33b. var. *parvifolia*

### 33a. *Scutellaria indica* var. *indica*

韩信草 han xin cao

*Scutellaria indica* Linnaeus var. *indica* f. *ramosa* C. Y. Wu & C. Chen; *S. leucodasya* Miquel; *S. tashiroi* Hayata.

Stems 12–28 cm tall, puberulent especially on angles and apex. Leaves cordate-ovate to elliptic, 1.5–2.6(–3)×1.2–2.3 cm, base rounded to cordate, apex obtuse to rounded, puberulent or strigose, densely so abaxially. Racemes 4–8(–12) cm. Corolla 1.4–1.8 cm.

• Hillsides, grasslands, open areas, roadsides, sparse forests; to 1500 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Henan, Hunan, Jiangsu, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Thailand, Vietnam].

Used as a folk remedy for traumatic injuries.

### 33b. *Scutellaria indica* var. *parvifolia* Makino, Somoku-Dzusetsu, ed. 3, 3: 846. 1912.

小叶变种 xiao ye bian zhong

*Scutellaria indica* Linnaeus var. *typica* Kudô; *S. parvifolia* Koidzumi; *S. parvifolia* Koidzumi var. *vulgaris* H. Hara; *S. microflora* Metcalf.

Stems 8–16(–20) cm tall, much branched, puberulent especially on angles and apex. Leaves cordate-ovate to ovate, 0.8–1.5×0.8–1 cm, base truncate to cuneate, apex acute. Racemes 4–8(–12) cm. Corolla 1–1.5 cm.

• Roadsides, grassy slopes, sparse forests. Anhui, Guangdong, Guangxi, Hunan, Taiwan, Yunnan [Japan].

### 33c. *Scutellaria indica* var. *subacaulis* (Sun ex C. H. Hu) C. Y. Wu & C. Chen, Fl. Yunnan. 1: 553. 1977.

缩茎变种 suo jing bian zhong

*Scutellaria indica* Linnaeus f. *subacaulis* Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 40. 1966.

Stems 8–10 cm tall, strigose. Leaves crowded apically, circular-ovate to triangular-ovate, 1.6–4(–5.2)×1.2–4(–4.4) cm, base cordate, apex obtuse, strigose. Racemes crowded, 2–3.5(–6) cm. Corolla 1.4–1.8 cm.

• Rocky areas; to 1500 m. Fujian, Guangdong, Henan, Hunan, Jiangsu, Jiangxi, Yunnan, Zhejiang [Japan].

### 33d. *Scutellaria indica* var. *elliptica* Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 40. 1966.

长毛变种 chang mao bian zhong

Stems 8–16 cm tall, densely white pilose. Leaves elliptic to elliptic-ovate, 1–2.5×0.8–1.8 cm, base rounded to truncate, apex acute, densely white pilose. Racemes 4–8(–12) cm. Corolla 1.4–1.8 cm.

• Slopes, roadsides, grasslands; to 900 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi, Sichuan, Zhejiang.

### 34. *Scutellaria taiwanensis* C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 580. 1977.

台湾黄芩 tai wan huang qin

Herbs perennial. Stems 10–24 cm tall, base 1–1.5 mm in diam., hirtellous, unbranched to few branched. Petiole 4–8.5 mm; leaf blade abaxially yellowish green or purplish, rhombic-ovate to ovate, 1.5–3.5×0.9–1.5 cm, herbaceous, adaxially sparsely strigose, abaxially glabrous, finely strigose along veins and margin, base cuneate-truncate, margin shallowly 2–4-serrate, apex acute to obtuse. Racemes terminal or subterminal, 1.5–2.7 cm; bracts ovate to rhombic-ovate, 4–7 mm, base cuneate to rounded, margin entire and ciliate, apex acute. Pedicel 2.5–3 mm, densely glandular hirtellous. Calyx ca. 2.5 mm, to 3.5 mm in fruit, densely glandular hirtellous; scutellum spreading, semicircular, ca. 2 mm, dilated to 3.5 mm in fruit. Corolla 1.7–2 cm, puberulent outside, sparsely puberulent on lower lip inside, base saccate-geniculate in front, erect, throat to 3 mm wide; middle lobe of lower lip triangular-ovate, ca. 3×4.5 mm, base abruptly constricted, apex emarginate; lateral lobes ovate, ca. 1.5 mm wide, apex obtuse. Nutlets ovoid, ca. 1×□0.6 mm, tuberculate, adaxially umbonate near base. Fl. and fr. Mar–Apr.

• Forests. Taiwan (Ali Shan).

### 35. *Scutellaria pseudotenax* C. Y. Wu, Fl. Yunnan. 1: 553. 1977.

假韧黄芩 jia ren huang qin

*Scutellaria pseudotenax* f. *brevipelta* C. Y. Wu & C. Chen.

Herbs perennial. Stems 9–27 cm tall, 0.8–1.2 mm in diam., densely antrorse pubescent. Petiole 5–14 mm; leaf blade triangular-ovate to ovate, 1.5–3.2×1.2–2.4 cm, membranous to papery, sparsely fine pilose, densely pilose along veins abaxially, sometimes glabrous adaxially, base

subtruncate, rounded, or shallowly cordate, margin remotely 4–6-dentate-serrate, apex acute to obtuse. Racemes terminal, 4–9 cm; bracts subsessile to short petiolate, ovate to rhombic, 2–2.5 mm, margin entire to few dentate, apex obtuse. Pedicel 2–3 mm, densely glandular pubescent. Calyx ca. 2 mm, 3–4(–6) mm in fruit, pubescent outside; scutellum ca. 1 mm, to 3 mm in fruit. Corolla blue, 1.2–1.4 cm, sparsely puberulent or glandular puberulent outside, sparsely pubescent inside; tube base slightly bent, throat to 2.2 mm wide; middle lobe of lower lip spreading, suboblong, sides constricted, apex emarginate; lateral lobes ovate. Nutlet chestnut brown, ellipsoid-ovoid to triquetrous ovoid, ca. 1 mm, tuberculate, adaxially umbonate at middle. Fl. Jul–Aug, fr. Aug.

- Thickets, slopes; 1600–1900 m. Yunnan.

**36. *Scutellaria yingtakensis*** Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 42. 1966.

英德黄芩 *ying de huang qin*

Herbs perennial. Stems ca. 35 cm tall, ascending, base trailing, rooting from nodes, sparsely antrorse pubescent, leafless basally; branches suberect. Petiole 5–14 mm; leaf blade narrowly ovate to narrowly triangular-ovate, 1.3–3×0.8–1.4 cm, herbaceous, adaxially sparsely pilose and midrib hirtellous, abaxially sometimes purplish, glabrous except hirtellous midrib and veins, base broadly cuneate to subtruncate, margin shallowly 4–6-serrate, apex acute. Racemes terminal, to 7 cm; bracts sessile, oblong, ca. 3 mm, base attenuate, margin entire, apex obtuse, lower bracts to 8 mm and margin shallowly 1- or 2-dentate. Pedicel ca. 2.5 mm, pubescent. Calyx ca. 2 mm, glandular puberulent outside; scutellum ca. 1.5 mm. Corolla reddish to purple-red, 1–1.2 cm, puberulent outside, base saccate-geniculate, white bearded, to 2.5 mm wide at throat; middle lobe of lower lip circular-ovate, ca. 3 mm wide; lateral lobes narrowly oblong, ca. 1.2 mm wide, apex rounded. Nutlets unknown. Fl. Apr–May.

- Hilly areas; 500–2200 m. Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangxi, Sichuan.

**37. *Scutellaria inghokensis*** Metcalf, Lingnan Sci. J. 12: 593. 1933.

永泰黄芩 *yong tai huang qin*

Herbs perennial. Rhizomes slightly enlarged. Stems 1 or 2, 11–25(–36) cm tall, 1–1.2(–2) mm in diam. at base, antrorsely pubescent, densely so apically. Petiole 0.5–2 cm; leaf blade ovate to rhombic-ovate, 1.1–3(–5.5)×0.7–1.7(–3.5) cm, membranous, adaxially sparsely strigose or subglabrous, abaxially glabrous, with orange glands, veins antrorsely pubescent, base cuneate to subrounded, margin with apical 2/3 obtusely dentate to coarsely crenate, apex acute to obtuse. Racemes terminal, 2–4 cm; bracts sessile, narrowly elliptic, 2–3 mm, margin entire and ciliolate. Pedicel 2–2.5 mm. Calyx ca. 2 mm, pubescent outside; scutellum ca. 1 mm. Corolla white to purplish, ca. 2.1 cm, sparsely puberulent outside, glabrous inside; tube ca. 1.8 cm, base bent, throat to 5 mm wide; middle lobe of lower lip triangular, ca. 5 mm wide, base constricted, apex emarginate; lateral lobes triangular, ca. 1.5 mm wide, apex obtuse. Nutlets unknown. Fl. Apr–May, fr. Aug.

- Rocky crevices; 500 m. Fujian.

**38. *Scutellaria pekinensis*** Maximowicz, Prim. Fl. Amur. 476. 1859.

京黄芩 *jing huang qin*

Herbs annual. Stems 24–40 cm tall, erect, 0.8–1.5 mm in diam., base purplish, subglabrous to densely pubescent. Petiole (0.3–)0.5–2 cm, base purplish; leaf blade ovate to triangular-ovate, 1.4–1.7×1.2–3.5 cm, herbaceous to membranous, base truncate to subrounded, margin shallowly obtuse dentate to incised dentate, apex acute to rounded. Racemes terminal, 4.5–11.5 cm; bracts minute, narrowly lanceolate, 3–7×1–2 mm, margin entire; lower bracts leaflike, longer, sparsely pubescent. Pedicel ca. 2.5 mm, densely antrorse white pubescent. Calyx ca. 3 mm, to 4 mm in fruit, pilose along veins or spreading glandular pubescent or densely pubescent; scutellum ca. 1.5 mm, to 4 mm in fruit. Corolla blue-purple, (1–)1.7–2.5 cm, glandular pubescent outside, glabrous inside, base slightly bent in front, throat to 5 mm wide; middle lobe of lower lip broadly ovate, slightly constricted at middle, apex emarginate; lateral lobes ovate. Nutlets chestnut or dark brown, ovoid, ca. 1 mm in diam., tuberculate, adaxially umbonate at base. Fl. Jun–Aug, fr. Jul–Oct.

- Stony and grassy slopes, wet valleys, forests, wet forested meadows; 100–2600 m. Anhui, Fujian, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jiangxi, Jilin, Nei Mongol, Shaanxi, Shandong, Sichuan, Zhejiang [Japan, Korea, Russia].

- 1a. Stems and petioles subglabrous or sparsely pubescent.
  - 2a. Leaves membranous, glabrous or strigose adaxially, sparsely villous on veins abaxially; calyx veins pilose ..... 38b. var. *ussuriensis*
  - 2b. Leaves herbaceous, sparsely strigose or veins, finely pubescent abaxially; calyx glandular pubescent ..... 38c. var. *transitra*
- 1b. Stems and petioles pubescent.
  - 3a. Stems and petioles densely pubescent, purplish throughout; leaves villous, veins densely pubescent abaxially ..... 38d. var. *purpureicaulis*
  - 3b. Stems and petioles sparsely antrorse white pubescent, purplish only at base; leaves sparsely appressed puberulent, densely so on abaxial veins.
    - 4a. Corolla less than 2 cm; calyx densely pubescent; leaves shallowly obtuse dentate, without glands ..... 38a. var. *pekinensis*
    - 4b. Corolla to 2.5 cm; calyx glandular pilose and pubescent; leaves incised-dentate, conspicuously dark glandular ..... 38e. var. *grandiflora*

**38a. *Scutellaria pekinensis* var. *pekinensis***

京黄芩 *jing huang qin*

*Scutellaria indica* Linnaeus var. *pekinensis* Franchet; *S. planipes* Nakai & Kitagawa.

Stems green, base purplish, antrorsely white pubescent, sparsely so near base. Petiole sparsely antrorse pubescent; leaf blade herbaceous, sparsely appressed puberulent, densely so on abaxial veins. Calyx densely pubescent. Corolla 1.7–1.8 cm.

- Stony slopes, wet valleys, forests; 600–1800 m. Hebei, Henan, Jilin, Shaanxi, Shandong, Zhejiang.

**38b. *Scutellaria pekinensis* var. *ussuriensis*** (Regel) Handel-Mazzetti, Acta Horti Gothob. 13: 339. 1939.

黑龙江变种 hei long jiang bian zhong

*Scutellaria japonica* Morren & Decaisne var. *ussuriensis* Regel, Mém. Acad. Imp. Sci. Saint Pétersbourg 4: 118. 1861; *S. dentata* H. Léveillé; *S. transitra* Makino var. *ussuriensis* (Regel) H. Hara; *S. ussuriensis* (Regel) Kudô; *S. ussuriensis* var. *typica* Nakai.

Stems green, base purplish, subglabrous or sparsely pubescent. Leaves membranous, adaxially glabrous or strigose, abaxially sparsely villous on veins. Calyx veins sparsely villous. Corolla 1.7–2.2 cm.

• Forested slopes, wet forested meadows; 500–1500 m. Heilongjiang, Jilin, Nei Mongol [Japan, Korea, Russia].

**38c. *Scutellaria pekinensis* var. *transitra*** (Makino) H. Hara ex H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 182. 1977.

短促变种 duan cu bian zhong

*Scutellaria transitra* Makino, Bot. Mag. (Tokyo) 18: 70. 1904; *S. ussuriensis* (Regel) Kudô var. *transitra* (Makino) Nakai.

Stems green, subglabrous or sparsely pubescent. Leaves sparsely strigose, sometimes finely pubescent on abaxial veins. Calyx glandular pubescent. Corolla 1.7–2.2 cm.

• Shaded areas in forests; 100–1300 m. Anhui, Fujian, Hunan, Jiangsu, Jiangxi, Zhejiang [Japan, Korea].

**38d. *Scutellaria pekinensis* var. *purpureicaulis*** (Migo) C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 183. 1977.

紫茎变种 zi jing bian zhong

*Scutellaria japonica* Morren & Decaisne var. *purpureicaulis* Migo, J. Shanghai Sci. Inst. 3: 97. 1935.

Stems purplish throughout, densely pubescent. Leaves sparsely villous, densely pubescent along veins abaxially. Calyx glandular pubescent. Corolla 1.7–2.2 cm.

• Hills; 200–2200 m. Anhui, Fujian, Hubei, Jiangsu, Shandong, Zhejiang.

**38e. *Scutellaria pekinensis* var. *grandiflora*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 580. 1977.

大花变种 da hua bian zhong

Stems green, pubescent. Leaves with conspicuous purple-black glands, incised dentate. Calyx glandular pilose and pubescent outside. Corolla to 2.5 cm.

• Grassy slopes; 2600 m. Sichuan (Wuxi Xian).

**39. *Scutellaria megaphylla*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 580. 1977.

大叶黄芩 da ye huang qin

Herbs annual. Stems erect, ca. 3 mm in diam., sparsely antrorse pubescent. Petiole 1–3 cm, narrowly winged, densely antrorse pubescent; leaf blade ovate, 5–10×3–7 cm, membranous, sparsely appressed pubescent, base shallowly cordate, margin remotely coarse dentate, apex acute. Racemes terminal, to 7.5 cm; bracts sessile, linear-lanceolate, 4–7×1–1.5 mm, densely white pubescent, margin entire, apex acute. Pedicel ca. 2 mm, densely white spreading glandular pubescent. Calyx ca. 2.5 mm, densely glandular pubescent

outside; scutellum ca. 1 mm. Corolla purple, ca. 1.9 cm, glandular pubescent outside, glabrous inside, base slightly saccate, straight, abruptly dilated above middle to 4.5 mm wide at throat; middle lobe of lower lip triangular-oblate, to 6 mm wide, apex emarginate; lateral lobes ovate, ca. 1.5 mm wide. Nutlets unknown.

• Coastal hills. Shandong (Lao Shan).

**40. *Scutellaria mairei*** H. Léveillé, Repert. Spec. Nov. Regni Veg. 11: 298. 1912.

毛茎黄芩 mao jing huang qin

*Scutellaria hebeclada* W. Smith.

Perennial herbs. Stems 16–22 cm tall, suberect, base ca. 1.5 mm in diam., densely and subpatent to antrorsely curved gray to yellowish hirsute. Leaves gradually larger upward; petiole 1.5–3 mm; basal leaf blade circular-ovate, ca. 5×5 mm, papery, densely gray to yellowish hirsute, base ± rounded, margin denticulate to dentate, apex rounded; mid stem and upper leaves triangular-ovate, ca. 1.5×1.2 cm. Racemes terminal, to 5 cm; bracts ± ovate, 3–7 mm, margin entire. Pedicel ca. 2.5 mm, densely gray to yellowish hirsute. Calyx purplish, ca. 3 mm, densely hirsute; scutellum ca. 1 mm. Corolla limb rose, tube white, ca. 1.6 cm, glandular puberulent outside, puberulent annulate inside, base bent, slightly dilated, zigzag upward, throat to 4 mm wide; middle lobe of lower lip broadly ovate, ca. 6 mm wide, slightly constricted at middle, apex emarginate; lateral lobes oblong-ovate, ca. 2 mm wide, apex acute. Nutlets unknown. Fl. May–Jun.

• Dry limestone mountains; 2600 m. Yunnan.

**41. *Scutellaria tenax*** W. Smith, Notes Roy. Bot. Gard. Edinburgh 12: 222. 1920.

韧黄芩 ren huang qin

Herbs perennial, rhizomatous. Stems ca. 36 cm tall, erect, base ca. 1.5 mm in diam., usually branched upward. Petiole 0.5–1.8 cm; leaf blade triangular to triangular-ovate, 1.5–3×1.1–2.4 cm, membranous to herbaceous, base truncate-cuneate, margin incised-dentate to shallowly dentate, apex acute. Racemes terminal, 5–9 cm; bracts ovate, rhombic, or spatulate, 3–4 mm, sparsely pubescent, margin ciliate. Pedicel 2–3 mm, densely glandular puberulent, pubescent. Calyx ca. 2 mm, to 4 mm in fruit, glandular puberulent outside, pubescent; scutellum ca. 1 mm, to 2 mm in fruit. Corolla blue, 1.2–1.3 cm, sparsely puberulent outside, glabrous inside; tube zigzag, ca. 5–6 mm, base bent, throat ca. 4 mm wide; middle lobe of lower lip broadly oblong-ovate, to 7 mm wide, apex emarginate; lateral lobes triangular, ca. 3 mm wide. Nutlets chestnut brown, ovoid, ca. 1×0.7 mm, tuberculate, adaxially umbonate near base. Fl. Aug, fr. Sep–Oct.

• Streamsides, grasslands, thickets, forests; 1500–2600 m. Sichuan, Yunnan.

- 1a. Stems, petioles, leaf veins abaxially, and inflorescences densely white pilose; leaf blades finely white bristly ..... 41b. var. *patentipilosa*
- 1b. Stems, petioles, leaf veins abaxially, and inflorescences pubescent or puberulent; leaf blades pubescent ..... 41a. var. *tenax*

**41a. *Scutellaria tenax* var. *tenax***

韧黄芩 *ren huang qin*

Stems retrorsely pubescent especially on angles. Leaf blade adaxially glabrous except for pubescent midrib and margin, abaxially sparsely pubescent.

• Streamsides, grasslands, thickets, forests; 1500–2600 m. Sichuan, Yunnan.

**41b. *Scutellaria tenax* var. *patentipilosa* (Handel-Mazzetti) C. Y. Wu, Fl. Yunnan. 1: 556. 1977.**

展毛变种 *zhan mao bian zhong*

*Scutellaria veronicifolia* H. Léveillé var. *patentipilosa* Handel-Mazzetti, Acta Horti Gothob. 13: 342. 1939.

Stems densely white pilose. Petiole densely white pilose; leaf blade finely white bristly, veins of abaxial surface densely white pilose. Inflorescences densely white pilose.

• Thickets, grassy slopes; 1600 m. Sichuan, Yunnan.

**42. *Scutellaria teniana* Handel-Mazzetti, Acta Horti Gothob. 13: 342. 1939.**

大姚黄芩 *da yao huang qin*

*Scutellaria indica* Linnaeus var. *ambigua* Handel-Mazzetti.

Herbs perennial, rhizomatous. Stems 14–24 cm tall, erect to ascending, unbranched, base 1–2.2 mm in diam., very densely spreading, glandular, white pilose. Leaves in 3 or 4 widely spaced pairs; blades of mid stem leaves largest, subcircular to triangular-ovate, 1.1–4.3×1.4–3.5 cm, papery, densely glandular pilose, with numerous glands abaxially, basal blades subcircular and less than 1 cm, base rounded or cuneate to shallowly cordate, margin crenulate, apex rounded to subacute. Racemes terminal, 3.5–9 cm; bracts ovate to lanceolate, minute, 1.5–3 mm, margin entire; basal bracts short petiolate, 0.7–2 cm, margin dentate. Pedicel 2–3 mm, glandular puberulent. Corolla blue-purple, 1.2–1.5 cm, glandular puberulent outside, pubescent annulate inside; tube as long as limb, base bent, gradually dilated upward, zigzag, to 5 mm wide at throat; middle lobe of lower lip broadly orbiculate, dark purple spotted, apex erose-dentate; lateral lobes oblanceolate. Nutlets unknown. Fl. Jun.

• Gravelly soils in forests; 2000–2100 m. Yunnan.

**43. *Scutellaria tapintzeensis* C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 556. 1977.**

大坪子黄芩 *da ping zi huang qin*

Herbs rhizomatous. Stems to 60 cm tall, erect, densely spreading glandular white pubescent. Petiole 1–2 cm; leaf blade ovate to ovate-cordate, 2–5×1.5–3.5 cm, abaxially densely white pubescent, sometimes also strigose, base shallowly cordate, margin crenulate, apex obtuse. Racemes terminal, 6–17 cm, glandular pubescent; bracts subsessile, elliptic, ca. 6 mm, margin entire, lower 1 or 2 pairs 1.3–2.5 cm, margin crenulate. Pedicel ca. 4 mm. Calyx ca. 3.5 mm, to 5 mm in fruit, densely glandular pilose; scutellum ca. 1.5 mm, purplish, to 3 mm in fruit. Corolla rose, ca. 2.3 cm, glandular puberulent outside, sparsely pilose just below middle lobe of lower lip inside; tube ca. 2×as long as limb, base slightly bent, zigzag, throat to 7 mm wide; middle lobe of lower lip spreading, circular-ovate, to 1 cm wide, base abruptly

constricted, apex emarginate; lateral lobes broadly ovate, to 5 mm wide, apex obtuse. Fl. Aug.

• Mixed oak-pine forests; 2500 m. Yunnan.

**44. *Scutellaria tienchueanensis* C. Y. Wu & C. Chen, Fl. Reipubl. Popularis Sin. 65(2): 581. 1977.**

天全黄芩 *tian quan huang qin*

Herbs rhizomatous perennials. Stems 15–25 cm tall, ca. 1.5 mm in diam. at base, much branched basally, densely upward curved to finely subpatent-pilose. Petiole 2.7–7 mm, densely and finely antrorse pilose; leaf blade triangular, 0.7–1.7×0.8–1.8 cm, herbaceous, adaxially sparsely strigose, abaxially very sparsely so, ciliate, base broadly cuneate to subtruncate, margin shallowly 4- or 5-crenate, apex obtuse to acute. Racemes terminal, 2.5–10 cm; peduncle 1–2 cm; bracts sessile, rhombic-ovate, ca. 2×1.5 mm, finely pilose, glandular, deciduous. Pedicel ca. 2.5 mm, glandular pilose. Calyx ca. 1.5 mm, to 3 mm in fruit, finely glandular pilose; scutellum ca. 0.5 mm, to 1 mm in fruit. Corolla rose to blue, base whitish, ca. 8 mm, glandular puberulent outside, subglabrous inside; tube slightly saccate at base, to 1.5 mm wide at throat; middle lobe of lower lip circular-ovate, to 5 mm wide, apex emarginate; lateral lobes ovate, ca. 0.8 mm wide. Nutlets brown, ellipsoid-ovoid, ca. 1.5×1 mm, tuberculate, adaxially umbonate at middle. Fl. May, fr. Jun-Sep.

• Dry grassy slopes; 1700–2800 m. Sichuan.

**45. *Scutellaria tenera* C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 581. 1977.**

柔弱黄芩 *rou ruo huang qin*

Herbs rhizomatous. Stems to 20 cm tall, ascending-erect, densely spreading white pilose, branched, internodes much longer than leaves. Petiole 0.2–2.5 cm; leaf blade narrowly triangular-ovate to oblong, 1.3–3×0.8–2.2 cm, membranous, sparsely pilose, base shallowly cordate, margin undulate-crenate, apex acute. Racemes terminal, 3.5–8 cm; bracts sessile, elliptic, all but lower bracts minute, 1.5–5 mm, membranous, margin entire, finely pilose. Pedicel ca. 2 mm, glandular puberulent. Calyx ca. 2 mm, to 3 mm in fruit, glandular puberulent; scutellum ca. 0.75 mm, to 2 mm in fruit. Corolla purple, ca. 8 mm, pubescent outside, glabrous inside; tube ca. 6.5 mm, base saccate, throat to 3 mm wide; upper lip straight; middle lobe of lower lip constricted at base, apex emarginate; lateral lobes ovate, ca. 1.5 mm wide. Nutlets unknown.

• Hills; 300 m. Hunan, Jiangxi, Zhejiang.

**46. *Scutellaria sciaphila* S. Moore, J. Bot. 13: 228. 1875.**

喜荫黄芩 *xi yin huang qin*

Herbs erect, rhizomatous. Stems 40–70 cm tall, including inflorescence, glabrous or sparsely puberulent except for white hirsute nodes, unbranched to branched above middle, base leafless. Petiole 3–7 mm, sparsely white hirsute; leaf blade membranous, oblong, 3–5.5×1.3–2 cm, adaxially sparsely white hirsute to subglabrous, abaxially glabrous except for sparsely white hirsute midrib and veins, base shallowly cordate, apex acute. Racemes terminal, 7–9 cm, densely glandular puberulent; bracts sessile, triangular-ovate, 3–15 mm, reduced upward, margin subentire. Pedicel ca. 2 mm. Calyx ca. 4.5 mm; scutellum ca. 1 mm. Corolla ca. 1.8 cm, glabrous except sparsely white pilose on middle lobe of lower lip inside; tube ca. 1.5 cm, base slightly saccate, bent,

gradually widened to 5 mm wide at throat; middle lobe of lower lip triangular-ovate, to 5 mm wide, apex emarginate; lateral lobes ovate, ca. 1.75 mm wide. Nutlets unknown. Fl. May.

- Fields. Jiangsu, Jiangxi, Shandong.

**47. *Scutellaria macrodonta*** Handel-Mazzetti, Oesterr. Bot. Z. 85: 218. 1936.

大齿黄芩 da chi huang qin

Herbs perennial. Rhizomes woody, with deciduous bark. Stems numerous, erect, 30–35 cm tall, base subterete, sparsely retrorse white pubescent, branched apically. Leaves oblong-ovate to narrowly lanceolate, 2–4×0.8–1.4 cm, papery, ± densely pubescent, base rounded to subtruncate, margin remotely 5-dentate-serrate, apex acute. Racemes terminal, 4–8 cm, mostly densely spreading glandular puberulent. Pedicel ca. 2.5 mm. Calyx ca. 3 mm, to 4.5 mm in fruit; scutellum ca. 1.25 mm, enlarged in fruit. Corolla purple-red, ca. 2.7 cm, glabrous inside; tube saccate-geniculate at base, to 7 mm wide at throat; middle lobe of lower lip ovate, ca. 6.5 mm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide. Nutlets tuberculate. Fl. Jun, fr. Jul-Aug.

- Near springs, valleys; 400–1200 m. Hebei, Henan.

**48. *Scutellaria likiangensis*** Diels, Notes Roy. Bot. Gard. Edinburgh 5: 239. 1912.

丽江黄芩 li jiang huang qin

Herbs perennial. Rhizomes 2–12 mm in diam., yellow inside. Stems 20–36 cm tall, erect, numerous, brown-purple, finely retrorse pilose, unbranched. Petiole 0–1.5 mm; basal leaf blade elliptic-ovate to oblong, 1.3–3×0.6–1.5 cm, papery, adaxially sparsely fine appressed pilose or subglabrous, abaxially densely impressed glandular, veins sparsely fine pilose, base rounded, margin crenate-serrate to subentire, apex rounded to emarginate. Racemes terminal, 6.5–12 cm, densely spreading glandular puberulent; basal bracts similar to stem leaves but narrower and 1.2–1.6 cm, apical ones ± ovate, 3.5–10 mm, margin entire. Pedicel 2–3 mm. Calyx purplish, ca. 3 mm, ca. 5.5 mm in fruit, glabrous inside; scutellum semicircular, spreading, ca. 1.5 mm, to 3 mm and reflexed in fruit. Corolla yellow-white, or yellow to green-yellow, with purplish spots or lines, rarely purplish, 2.6–3 cm, glabrous inside; tube saccate, base ± bent at a right angle, throat ca. 6 mm wide; middle lobe of lower lip subcircular, to 9 mm wide; lateral lobes ovate, ca. 2.5 mm wide. Nutlets black-brown, ovoid, ca. 1.75×1.25 mm, tuberculate, adaxially umbonate at middle. Fl. Jun-Aug, fr. Aug-Sep.

- Grassy slopes, dry hillside thickets; 2500–3100 m. Yunnan.

Forms with purple flowers are found ± sympatrically with the normal yellow-flowered plants and are difficult to distinguish from *Scutellaria amoena*.

Used medicinally as a febrifuge, for relieving fever, and diminishing inflammation.

**49. *Scutellaria chungtienensis*** C. Y. Wu, Fl. Yunnan. 1: 557. 1977.

中甸黄芩 zhong dian huang qin

Herbs perennial. Rootstocks brownish, to 8 mm in diam., apically forked. Stems purplish, numerous, erect, (9–)15–30 cm tall, ca. 1 mm in diam., subglabrous except for densely fine retrorse-pilose angles, branched. Petiole 1–1.5 mm; leaf

blade ovate to elliptic-ovate, (0.9–)1.5–3×(0.4–)0.9–1.2 cm, papery, sparsely fine pilose, base rounded to shallowly cordate, margin undulate-crenulate, apex acute. Racemes terminal, (3–)6–12 cm, mostly white glandular pilose; bracts sessile to short petiolate, narrowly elliptic to oblong, 3–8×1.5–3.5 mm, base cuneate, all but lowermost ones entire, ciliate, apex acute. Pedicel 1.8–3 mm. Calyx ca. 2.5 mm, ca. 5 mm in fruit; scutellum semicircular, spreading, ca. 1 mm, to 2.5 mm in fruit. Corolla purple or dark blue, 1.8–2 cm, densely and finely white glandular pilose outside, glabrous inside; tube saccate, sharply bent, throat to 3.5 mm wide; middle lobe of lower lip subcircular, ca. 4.5 mm in diam.; lateral lobes ovate, ca. 1.5 mm wide. Nutlets unknown. Fl. Jun-Jul, fr. Jul-Aug.

- Grassy slopes; 3000–3300 m. Yunnan (Zhongdian Xian).

**50. *Scutellaria forrestii*** Diels, Notes Roy. Bot. Gard. Edinburgh 5: 239. 1912.

灰岩黄芩 hui yan huang qin

*Scutellaria forrestii* var. *intermedia* C. Y. Wu & H. W. Li; *S. forrestii* var. *muliensis* C. Y. Wu.

Herbs perennial. Rootstocks to 1.5 cm in diam. Stems erect, 15–20(–25) cm tall, ca. 2 mm in diam. basally, densely spreading white pilose. Petiole 2–3 mm; lower leaf blade abaxially purplish or violet, subcircular, ca. 1×1 cm, upper leaf blades broadly ovate to oblong and 1.6–2.5(–3.5)×(1.1–)1.5–2.5 cm, herbaceous, sparsely pilose, base shallowly cordate, margin crenate-serrate, apex obtuse to rounded. Racemes terminal, 4.5–8 cm, mostly pilose; bracts reduced upward, petiolate, ± ovate, margin entire. Pedicel ca. 3 mm. Calyx ca. 3 mm, densely pilose outside; scutellum ca. 1 mm. Corolla dark blue, (2–)3–3.5(–3.7) cm, densely fine glandular pilose outside, glabrous inside; tube base saccate-geniculate, ca. 5 mm wide at middle, throat to 7 mm wide; middle lobe of lower lip circular-ovate, to 1.2 cm wide near base; lateral lobes ovate, ca. 3 mm wide. Nutlets unknown. Fl. Jul.

- Oak, pine, and larch forests, grassy slopes; 2100–3400 m. Sichuan, Yunnan.

**51. *Scutellaria amoena*** C. H. Wright, Bull. Misc. Inform. 1896: 164. 1896.

滇黄芩 dian huang qin

Herbs perennial. Rootstocks at least 1.1 cm in diam., forked. Stems purplish, numerous, erect, 12–26(–35) cm tall, retrorsely to spreading puberulent to pilose along angles. Petiole 1–2 mm; leaf blade oblong-ovate to oblong, 1.4–3.3×0.7–1.4 cm at mid and upper parts of stem, smaller basally, folded, herbaceous, sparsely puberulent to subglabrous, base rounded to shallowly cordate, margin inconspicuously crenate to entire, apex rounded to obtuse. Racemes terminal, 5–14 cm, mostly glandular puberulent; bracts reduced upward, lanceolate-oblong, 5–10 mm, base cuneate, apex acute to obtuse. Pedicel 3–4 mm. Calyx purplish, ca. 3 mm, to 5 mm in fruit; scutellum ca. 1 mm, to 3 mm in fruit. Corolla purple or blue-purple, 2.4–3 cm, glabrous inside; tube base slightly saccate, conspicuously bent, throat to 7 mm wide; middle lobe of lower lip subcircular, to 1 cm wide, margin subentire; lateral lobes triangular, ca. 3 cm wide. Nutlets black, ovoid, ca. 1.25×1 mm, tuberculate, adaxially umbonate near base. Fl. May-Sep, fr. Jul-Oct.

- Grasslands, pine forests; 1300–3000 m. Guizhou, Sichuan, Yunnan.

- 1a. Plants sparsely puberulent or pilose to subglabrous ..... 51a. var. *amoena*  
 1b. Plants, except corolla, densely gray or grayish yellow hirsute ..... 51b. var. *cinerea*

**51a. *Scutellaria amoena* var. *amoena***

滇黄芩 dian huang qin

*Scutellaria purpureocoerulea* Pax & K. Hoffmann.

Plants sparsely puberulent or pilose to subglabrous.

• Grasslands, pine forests; 1300–3000 m. Guizhou, Sichuan, Yunnan.

Used medicinally for fever.

**51b. *Scutellaria amoena* var. *cinerea* Handel-Mazzetti, Symb. Sin. 7: 915. 1936.**

灰毛变种 hui mao bian zhong

Plants, except corolla, very densely gray or grayish yellow hirsute.

• Pine forests, sunny grassy slopes; 1300–2700 m. Sichuan, Yunnan.

**52. *Scutellaria baicalensis* Georgi, Bemerck. Reise Russ. Reichs 1: 223. 1775.**

黄芩 huang qin

*Scutellaria lanceolaria* Miquel; *S. macrantha* Fischer.

Herbs perennial. Rhizomes fleshy, to 2 cm in diam., branched. Stems ascending, (15–)30–120 cm tall, much branched, subglabrous or antrorsely to spreading puberulent. Petiole ca. 2 mm, puberulent; leaf blade lanceolate to linear-lanceolate, 1.5–4.5×(0.3–)0.5–1.2 cm, papery, glabrous or sparsely puberulent, abaxially densely impressed glandular, base rounded, margin entire, apex obtuse. Racemes terminal, 7–15 cm; basal bracts similar to stem leaves, upper ones ovate-lanceolate to lanceolate, 4–11 mm, subglabrous. Pedicel ca. 3 mm, puberulent. Calyx ca. 4 mm, ca. 5 mm in fruit, densely puberulent outside, margin ciliate, glabrous inside; scutellum ca. 1.5 mm, ca. 4 mm in fruit. Corolla purple-red to blue, 2.3–3 cm, densely glandular pubescent outside, pubescent on saccate part inside; tube conspicuously bent near base, throat to 6 mm wide; middle lobe of lower lip triangular-ovate, ca. 7.5 mm wide. Nutlets black-brown, ovoid, ca. 1.5×1 mm, tuberculate, adaxially umbonate near base. Fl. Jul–Aug, fr. Aug–Sep.

• Sunny grassy slopes, waste and cultivated areas; 100–2000 m. Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Liaoning, Nei Mongol, Shaanxi, Shandong, Shanxi [Japan, Korea, Mongolia, Russia].

Traditionally used as a febrifuge, for relieving fever, and diminishing inflammation. This is one of the most commonly collected species in China.

**53. *Scutellaria viscidula* Bunge, Mém. Acad. Imp. Sci. St.-Petersbourg Divers Savans 2: 126. 1833.**

粘毛黄芩 nian mao huang qin

Herbs perennial. Rootstocks 2.5–4(–18) mm in diam. Stems erect to ascending, 8–24 cm tall, ± densely retrorse pubescent, sometimes spreading glandular pubescent, much branched. Petiole 0–2 mm; leaf blade lanceolate to linear,

1.5–3.2×2.5–8 mm, adaxially sparsely appressed pubescent or subglabrous, abaxially ± pubescent, densely yellow glandular, base truncate to broadly cuneate, margin entire and densely ciliolate, apex obtuse. Racemes terminal, 4–7 cm, most parts glandular pilose/pubescent; lower bracts similar to stem leaves, upper ones elliptic to elliptic-ovate, 4–5 mm. Pedicel ca. 3 mm. Calyx ca. 3 mm, to 6 mm in fruit; scutellum 1–1.5 mm, ca. 4 mm in fruit. Corolla yellow-white or white, 2.2–2.5 cm, ± densely glandular pubescent outside, pilose on saccate part inside, conspicuously bent near base, throat to 7 mm wide; middle lobe of lower lip subcircular, ca. 1.3 cm in diam.; lateral lobes ovate, ca. 3 mm wide. Nutlets black, ovoid, tuberculate, adaxially umbonate near base. Fl. May–Aug, fr. Jul–Aug.

• Gravelly waste places, grasslands; 700–1400 m. Hebei, Nei Mongol, Shandong, Shanxi.

**54. *Scutellaria rehderiana* Diels, Notizbl. Bot. Gart. Berlin-Dahlem 10: 889. 1930.**

甘肃黄芩 gan su huang qin

*Scutellaria kansuensis* Handel-Mazzetti.

Herbs perennial. Rootstocks 1.5–13 mm wide. Stems erect, 12–35 cm tall, subglabrous or ± spreading to retrorsely white puberulent except retrorsely pubescent on angles, rarely short branched. Petiole 2.8–9(–12) mm; leaf blade narrowly triangular-ovate to ovate, 1.4–4×0.6–1.7 cm, herbaceous, adaxially very sparsely strigose to sparsely puberulent, abaxially sparsely glandular, veins sparsely puberulent to pilose and densely ciliolate, base broadly cuneate to subtruncate or subrounded, margin entire to irregularly, remotely 2–5-shallow-dentate, apex rounded to acute. Racemes terminal, 3–10 cm; bracts purplish, ovate to elliptic, sometimes obovate, 3–8 mm, base cuneate, apex acute, ciliate. Pedicel ca. 2 mm, densely glandular pubescent. Calyx ca. 2.5 mm, densely glandular pubescent outside; scutellum ca. 1 mm. Corolla reddish to purple-blue, 1.8–2.2 cm, glandular pubescent outside, glabrous inside; tube bent near base, gradually dilated upward; middle lobe of lower lip triangular-ovate, ca. 1.1 cm wide, apex emarginate; lateral lobes ovate. Fl. May–Aug.

• Sunny grassy slopes; 1300–3200 m. Gansu, Shaanxi, Shanxi.

**55. *Scutellaria hypericifolia* H. Léveillé, Repert. Spec. Nov. Regni Veg. 9: 221. 1911.**

连翘叶黄芩 lian qiao ye huang qin

Herbs perennial. Rootstocks to 2 cm in diam., many headed. Stems purplish, suberect, 10–30 cm tall, subglabrous except for spreading white pilose angles and bearded nodes, usually unbranched. Petiole 1–2 mm; leaf blade abaxially purplish except for whitish veins, mostly ovate, sometimes oblong, 2–3.4×0.7–1.4 cm, herbaceous, base rounded to cuneate, margin entire to undulate, rarely shallowly few serrate, apex rounded to obtuse or rarely acute. Racemes terminal, 6–15 cm; bracts ovate, 0.7–1.5 cm, margin entire and ciliate, apex acute. Pedicel 2.5–3 mm, pilose. Calyx purplish, ca. 3 mm, to 6 mm in fruit, pilose outside, yellow glandular; scutellum ca. 1 mm, to 3 mm in fruit. Corolla white, greenish white to purple or purple-blue, 2.5–2.8 cm, sparsely pubescent outside, pubescent at base inside; tube 1.8–2.1 cm, base bent, throat to 6 mm wide; middle lobe of lower lip triangular-ovate, to 9 mm wide, apex emarginate; lateral lobes adnate to upper lip, ca. 2.5 mm wide. Nutlets

black, ovoid, ca. 2×1.5 mm, papillate, adaxially umbonate near base. Fl. Jun-Aug, fr. Aug-Sep.

- Grassy slopes, forest margins; 900–4000 m. Sichuan.

1a. Stems subglabrous except for sparsely white-pilose angles; leaves sparsely pilose

..... 55a. var. *hypericifolia*

1b. Stems and leaves densely spreading white pilose

..... 55b. var. *pilosa*

### 55a. *Scutellaria hypericifolia* var. *hypericifolia*

连翘叶黄芩 *lian qiao ye huang qin*

*Scutellaria pachyrrhiza* Pax & K. Hoffmann.

Stems subglabrous except sparsely white pilose on angles. Leaves adaxially sparsely pilose, abaxially sparsely pilose mainly along veins.

- Grassy slopes, margins of *Quercus rehderiana* forests; 900–4000 m. Sichuan.

55b. *Scutellaria hypericifolia* var. *pilosa* C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 582. 1977.

多毛变种 *duo mao bian zhong*

Stems densely white pilose. Leaves densely white pilose.

- Grassy slopes. Sichuan.

56. *Scutellaria spectabilis* Pax & K. Hoffmann ex Limpricht, Repert. Spec. Nov. Regni Veg. Beih. 12: 476. 1922.

白花黄芩 *bai hua huang qin*

Stems prostrate, glabrous, sterile ones 20–30 cm tall, fertile 4–8 cm tall; branches erect. Petiole obsolete to 5 mm; leaf blade narrowly ovate, 4–5×1–2 cm, smaller on fertile branches, 3–5-veined, glabrous, base rounded and constricted into a very short petiole, margin entire, apex slightly acuminate. Racemes crowded, secund; bracts reduced apically, glandular hairy, as long as or slightly longer than pedicels. Flowers opposite. Pedicel ca. 2 mm, glandular hairy. Calyx ca. 3×4 mm; scutellum slightly dilated. Corolla white to yellowish, ca. 2.5 cm, glandular hairy outside; tube ca. 1.5 cm, base conspicuously saccate; limb ca. 1 cm. Nutlets unknown.

- Grassy slopes; 800 m. Sichuan.

57. *Scutellaria orthocalyx* Handel-Mazzetti, Acta Horti Gothob. 9: 75. 1934.

直萼黄芩 *zhi e huang qin*

Herbs perennial. Rhizomes prostrate, 1–1.5 mm in diam., much branched. Stems numerous, erect, 6–25 cm tall, antrorsely pubescent on angles, sometimes subglabrous, mostly unbranched. Petiole less than 1 mm; leaf blade ovate-lanceolate basally, linear upward, 1–2.1×2.2–5.5(–7) mm, herbaceous, sparsely puberulent, impressed glandular abaxially, base rounded to broadly cuneate, margin entire and slightly involute, apex obtuse to rounded. Racemes terminal, 3–19 cm; bracts linear, gradually reduced upward. Pedicel 1.2–2.5 mm, glandular pubescent. Calyx purplish, 1.5–2.5 mm, to 4 mm in fruit, glandular pubescent outside; scutellum circular, ca. 1 mm, to 2.5 mm in fruit. Corolla purple to blue-purple, 1.2–1.7 cm, glandular pubescent outside, mostly glabrous inside, limb partly white pilose; tube bent near base; middle lobe of lower lip ovate, apex emarginate; lateral lobes

triangular-ovate, margin revolute. Nutlets black-brown, subglobose, ca. 1.8 mm in diam., tuberculate, adaxially umbonate near base. Fl. Apr-Oct, fr. Jun-Oct.

- Grassy slopes, pine forests; 1200–3300 m. Sichuan, Yunnan.

Used medicinally.

58. *Scutellaria incisa* Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 39. 1966.

裂叶黄芩 *lie ye huang qin*

Herbs pyramidal, erect. Stems purple-red when dry, ca. 40 cm tall, smooth, glabrous, many branched. Petiole ca. 1 cm at mid stem; leaf blade subrhombic to ovate-lanceolate, ca. 4.8×2 cm and largest at mid stem, herbaceous, glabrous, base cuneate-decurrent, margin incised-serrate, apex caudate-acuminate. Racemes poorly defined, terminal, 5–10 cm, all forming a panicle; bracts entire, as long as or shorter than flowers, foliaceous basally, lanceolate upward. Pedicel 2–3 mm, purple-red, finely puberulent or subglabrous. Calyx ca. 2 mm, glabrous, sparsely glandular; scutellum inconspicuous, ca. 0.5 mm. Corolla purplish, ca. 2 cm, sparsely puberulent outside, glabrous inside; tube slightly saccate, throat to 4 mm wide; middle lobe of lower lip triangular-ovate, to 4 mm wide, margin entire; lateral lobes narrowly triangular-ovate. Nutlets unknown. Fl. Jun.

- Stony riverbeds; 600 m. Jiangxi, Zhejiang.

59. *Scutellaria subintegra* C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 582. 1977.

两广黄芩 *liang guang huang qin*

Herbs pyramidal, perennial. Stems purplish-red when dry, erect, puberulent, angles narrowly winged, much branched. Petiole 4–7 mm; leaf blade linear-lanceolate, 1.2–3.6 cm×3.5–9 mm, herbaceous, adaxially appressed puberulent, abaxially glabrous, midrib and veins sparsely puberulent, base cuneate-decurrent, margin remotely 1- or 2-undulate-crenate, apex obtuse. Racemes terminal, 1.5–5 cm; bracts entire, longer than calyx. Pedicel 2.5–3 mm, densely puberulent. Calyx ca. 2 mm, puberulent; scutellum ca. 0.75 mm. Corolla purple, to 1.3 cm, puberulent outside, glabrous inside; tube base saccate, throat to 3 mm wide; middle lobe of lower lip subcircular, ca. 3 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Fl. Aug-Oct, fr. Nov.

- Slopes. Guangdong, Guangxi.

60. *Scutellaria axilliflora* Handel-Mazzetti, Acta Horti Gothob. 13: 337. 1939.

腋花黄芩 *ye hua huang qin*

Herbs perennial, rhizomatous. Stems ascending to erect, 30–40(–60) cm tall, finely antrorse hairy especially on angles. Petiole 4–13 mm, densely pubescent; leaf blade ovate to triangular-ovate, 1.2–2.5×0.7–2.1 cm, herbaceous, adaxially sparsely fine pubescent, abaxially subglabrous or pubescent, veins pilose, base broadly-cuneate to subtruncate, margin coarsely 1–3-dentate, apex obtuse; apical blades bractlike, margin entire or 1- or 2-crenate. Flowers solitary, axillary, obliquely spreading, secund. Pedicel 1.8–3 mm, pubescent. Calyx 2–3 mm, ca. 4×3 mm in fruit, sparsely pubescent, ciliolate, glandular; scutellum ca. 1 mm, ca. 2 mm in fruit. Corolla purple or purplish blue, 1.6–3.5 cm, pubescent outside, glabrous except for villous base inside; tube base

bent, slightly dilated, throat ca. 4 mm wide; middle lobe of lower lip projected, trapeziform, ca. 2.5×3 mm, apex emarginate; lateral lobes ovate, to 1/2 as long as lower lip; ovary bullate hairy at juncture with disc. Nutlets dark brown, ovoid, ca. 1×less than 1 mm, tuberculate, adaxially swollen, umbonate near base. Fl. Apr-Jun, fr. Jun-Jul.

• Rocky shaded areas in forests, thickets; 900 m. Fujian, Zhejiang.

1a. Corolla 1.6–2 cm ..... 60a. var. *axilliflora*

1b. Corolla 2.4–3.5 cm ..... 60b. var. *medullifera*

**60a. *Scutellaria axilliflora* var. *axilliflora***

腋花黄芩 *ye hua huang qin*

Corolla 1.6–2 cm.

• Rocky, shaded areas in forests; 900 m. Fujian.

**60b. *Scutellaria axilliflora* var. *medullifera*** (Sun ex C. H. Hu) C. Y. Wu & H. W. Li, Fl. Republ. Popularis Sin. 65(2): 205. 1977.

大花变种 *da hua bian zhong*

*Scutellaria medullifera* Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 40. 1966.

Corolla 2.4–3.5 cm.

• Thickets. Zhejiang.

**61. *Scutellaria lotienensis*** C. Y. Wu & S. Chow, Fl. Reipubl. Popularis Sin. 65(2): 583. 1977.

罗甸黄芩 *luo dian huang qin*

Herbs procumbent, much branched. Stems subglabrous. Petiole ca. 1.2 cm at mid stem, sparsely puberulent; leaf blade ovate-lanceolate, ca. 6.2×3 cm at mid stem, herbaceous, subglabrous, base cordate, margin remotely undulate-crenate, apex obtusely caudate-attenuate. Racemes lax; floral leaves reduced upward; bracts ovate, margin 1- or 2-undulate-crenate. Flowers axillary. Pedicel ca. 2 mm, puberulent. Calyx ca. 2 mm, puberulent outside, scarlet glandular; scutellum ca. 2.2 mm, to 4 mm in fruit. Corolla yellowish, ca. 2 cm, puberulent outside, apically red glandular, glabrous inside; tube straight, base saccate-geniculate, throat ca. 5 mm wide; middle lobe of lower lip spreading, ovate, ca. 6 mm, sides reflexed; lateral lobes oblong, ca. 4×2.5 mm. Nutlets unknown. Fl. Mar-Apr.

• Shaded hillside thickets; 400–800 m. Guizhou.

**62. *Scutellaria pingbienensis*** C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 548. 1977.

屏边黄芩 *ping bian huang qin*

Herbs perennial. Stems purplish when dry, ascending, ca. 30 cm tall, subterete, base ca. 1.5 mm in diam., few branched, densely antrorse white hirsute. Petiole 2–10 mm; leaf blade broadly triangular-ovate, 1.5–4×1–4 cm, papery, white strigose, base cordate, rarely rounded, margin irregularly crenate-serrate, apex acute to slightly obtuse. Racemes poorly defined, terminal, 4–11 cm; bracts rhombic-ovate, margin entire. Pedicel 2–2.5 mm, glandular hirsute. Calyx 2–3 mm, to 4 mm in fruit, densely glandular hirsute outside; scutellum ca. 1 mm, ca. 2.5×4 mm, oblate, reflexed, and conspicuously netted in fruit. Corolla reddish with purple spots, 1.4–1.5 cm, glandular pilose outside, finely pilose on lower lip,

inconspicuously annulate inside; tube ca. 9 mm, slightly curved, base slightly saccate, throat ca. 3 mm wide; upper lip ca. 2 mm; middle lobe of lower lip spreading, revolute, oblate, to 8 mm wide; lateral lobes adnate to upper lip, ovate, ca. 2 mm wide, revolute. Nutlets unknown. Fl. Jan-Apr.

• Sunny dry grassy slopes; 700–1400 m. Yunnan.

**63. *Scutellaria shweliensis*** W. Smith, Notes Roy. Bot. Gard. Edinburgh 10: 66. 1917.

瑞丽黄芩 *rui li huang qin*

Subshrubs 30–60 cm tall. Stems erect, terete, densely spreading white hirsute. Petiole 1.5–4 mm; leaf blade ovate, 1.5–3.8×0.8–2.5 cm, papery, yellowish hirtellous, occasionally sparsely yellow glandular, adaxially slightly wrinkled, base broadly cuneate to roundish, margin shallowly crenate to entire, apex acute to subobtusate. Racemes poorly defined, terminal, leafy, 7–27 cm. Pedicel to 5 mm, densely, spreading, white hirsute. Calyx 2–3 mm, glandular hirsute outside, to 4 mm in fruit; scutellum ca. 3 mm, subcircular, ca. 5×5 mm, reflexed, conspicuously netted in fruit. Corolla purple, 1.5–1.7 cm, finely glandular pilose outside, glabrous inside; tube to ca. 8 mm, suberect, base slightly saccate, throat ca. 3 mm wide; upper lip ca. 4.5 mm; middle lobe of lower lip subcircular, ca. 6.5 mm in diam., revolute, apex emarginate; lateral lobes adnate to upper lip, ca. 2.5×1 mm, revolute. Nutlets black, ellipsoid, ca. 1.25×0.75 mm, adaxially appressed, white puberulent, white umbonate near base.

• Sunny roadsides, savannalike slopes; 600–1600 m. Yunnan.

**64. *Scutellaria wongkei*** Dunn, Bull. Misc. Inform. 1914: 329. 1914.

南粤黄芩 *nan yue huang qin*

Stems ± woody, suberect, ca. 50 cm tall, much branched, densely antrorse hirtellous, hairs with many long branches. Petiole 2–5 mm; leaf blade ovate, 0.9–2.2 cm × 4–14 mm, papery, densely hirtellous, glandular, base broadly cuneate to roundish, margin 2- or 3-crenate, apex obtuse. Flowers solitary, axillary, on branchlets; pedicel ca. 3.5 mm, densely hirtellous. Calyx ca. 1.5 mm, ca. 3.5 mm in fruit, densely hirtellous outside; scutellum ca. 0.5 mm. Corolla bluish, 1.1–1.4 cm, glandular pilose outside, sparsely pilose on limb inside; tube suberect, base slightly saccate, throat to 2.5 mm wide. Fl. and fr. Jun.

• Grassy areas. Guangdong.

**65. *Scutellaria hunanensis*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 583. 1977.

湖南黄芩 *hu nan huang qin*

Herbs erect. Stems sparsely antrorse appressed hairy, densely so on angles, with many long branches. Petiole (0.4–)1–3 cm, densely pubescent; leaf blade triangular-ovate, (2–)2.5–5.5×(1.3–)1.5–4 cm, papery, adaxially sparsely strigose, glandular, densely pubescent on midrib, veins, and margin, abaxially glabrous and veins pubescent, base broadly cuneate to shallowly cordate, margin coarsely crenate to double crenate, apex obtuse. Racemes terminal, 2–5.5 cm; bracts petiolate, elliptic, ca. 3 mm, margin entire, sparsely pubescent. Fruiting pedicel ca. 2 mm, pubescent. Fruiting calyx ca. 4 mm, sparsely pubescent along veins otherwise glandular; scutellum ca. 4 mm. Corolla and nutlets not seen.

• Hunan.

**66. *Scutellaria bambusetorum*** C. Y. Wu, Fl. Yunnan 1: 563. 1977.

竹林黄芩 zhu lin huang qin

Herbs perennial. Stems erect, ca. 50 cm tall, sparsely puberulent, much branched. Petiole 1.5–2.5 cm; leaf blade ovate to ovate-lanceolate, 2–5×1.5–3 cm, membranous, sparsely strigose, base broadly cuneate to truncate, margin shallowly 5–7-crenate, apex acute. Bracts similar to stem leaves, minute. Flowers solitary in upper leaf axils; pedicel ca. 3 mm, puberulent, to 5 mm after anthesis. Calyx ca. 3.5 mm, sparsely glandular puberulent outside; scutellum ca. 1 mm. Corolla ca. 9 mm, densely puberulent outside, glabrous inside; tube straight, base slightly saccate; upper lip ca. 1 mm; middle lobe of lower lip ovate, ca. 2.5 mm wide, apex emarginate; lateral lobes narrowly ovate, ca. 1.25 mm wide. Nutlets unknown. Fl. Dec.

- Bamboo forests; 2000 m. Yunnan (Jinping Xian).

**67. *Scutellaria chimenensis*** C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 583. 1977.

祁门黄芩 qi men huang qin

Stems ± flexuous, ca. 30 cm tall, densely retrorse yellowish pubescent, much branched. Petiole to 4 cm, spreading yellowish pilose; leaf blade ovate, 6.5–7×4–4.6 cm on stem, 1.5–2.5×1.2–1.7 cm on branches, herbaceous, densely pilose, base cordate, margin crenate, apex acute. Racemes terminal on lateral branches, to 15 cm. Pedicel ca. 3 mm, spreading, glandular pilose. Fruiting calyx ca. 4 mm, glandular pilose; scutellum ca. 3.5 mm. Corolla and nutlets not seen. Fr. Aug.

- Streamsides in forests; 100 m. Anhui (Qimen Xian).

**68. *Scutellaria franchetiana*** H. Léveillé, Repert. Spec. Nov. Regni Veg. 9: 221. 1911.

岩霍香 yan huo xiang

*Scutellaria angulosa* Bentham var. *franchetiana* (H. Léveillé) Kudô.

Herbs perennial. Rhizomes horizontal, stoloniferous. Stems purplish, ascending, 30–70 cm tall, antrorsely puberulent, especially along angles, leafless on basal 1/3. Petiole 3–10 mm; leaf blade ovate to ovate-lanceolate, 1.5–3(–4.5)×1–2(–2.5) cm, herbaceous, adaxially sparsely puberulent especially on margin, abaxially glabrous, midrib and veins puberulent, base broadly cuneate or subtruncate to cordate, margin 3- or 4-dentate, apex acuminate. Racemes terminal on apical branches, (1)–2–9 cm; bracts petiolate, leaflike, longer than pedicels. Pedicel 2–3 mm, puberulent or glandular pubescent. Calyx ca. 2.5 mm, to 4 mm in fruit, puberulent to glandular pubescent outside; scutellum ca. 1.5 mm, to 3 mm in fruit. Corolla purple, to 2.5 cm, glandular pubescent outside, glabrous inside, base slightly saccate-geniculate, throat to 4 mm wide; middle lobe of lower lip triangular-ovate, to 4 mm wide, margin subentire; lateral lobes ovate, ca. 3 mm wide, apex emarginate. Nutlets black, ovoid, ca. 0.5 mm in diam., tuberculate, adaxially umbonate at base. Fl. Jun–Jul.

- Wet slopes; 800–2300 m. Guizhou, Hubei, Shaanxi, Sichuan.

Used in treatment of traumatic swelling, coughs.

**69. *Scutellaria stenosphon*** Hemsley, J. Linn. Soc., Bot. 26: 297. 1890.

狭管黄芩 xia guan huang qin

Stems with several, short, ascending flowering branches, 4-angled/narrowly winged, glabrescent. Petiole to 6 mm; leaf blade ovate or broadly lanceolate, 2–3.5 × 1.2–1.5 cm, papery, glabrous, adaxially sparsely glandular, abaxially densely yellow glandular, base cuneate, margin narrowly revolute, ± entire, or inconspicuously crenate, apex acute to subacute. Racemes to 10 cm, terminal on short leafy lateral branches; rachis very minutely antrorse pubescent; lower floral leaves longer than pedicels, mostly sessile, ovate, to 3 mm, margin entire and ciliolate; bracteoles ± subulate, ca. 0.3 mm, inserted about halfway along pedicel. Pedicel to 3.5 mm, puberulent. Scutellum ca. 1 mm. Corolla lilac, 1.8–2 cm, glandular pubescent outside; tube ca. 0.7 mm wide, only slightly enlarged at base, gradually dilated to ca. 4 mm at throat.

- Guangdong (Luofu Shan).

This species is similar to *Scutellaria franchetiana* H. Léveillé and differs by its smaller, thicker, ± entire or inconspicuously crenate, and apically obtuse leaves, axillary racemes, small, few, leaflike bracts, longer pedicel, and smaller corolla with a very slender tube.

**70. *Scutellaria weishanensis*** C. Y. Wu & H. W. Li, Fl. Yunnan. 1: 563. 1977.

巍山黄芩 wei shan huang qin

Herbs perennial. Stems purplish, erect, acutely 4-winged/angled, wings ca. 0.25 mm wide, glabrous, white barbate at nodes. Petiole purple, 3–5 mm; leaf blade triangular-ovate, 1.5–3×1.2–1.8 cm, very sparsely white pubescent, base cuneate to cordate, margin irregularly 3–5-serrate, apex acute. Racemes terminal, lax, poorly defined, 3–7 cm; bracts leaflike, 5–7 mm, 1-crenate, short petiolate. Pedicel ca. 3 mm, pubescent. Calyx ca. 4 mm, pubescent on veins and margin outside; scutellum ca. 2 mm. Corolla purple-red, to 2 cm, densely white glandular pubescent outside; tube short, erect, base slightly saccate, throat to 6 mm wide, apex of upper lip 2-lobulate; middle lobe of lower lip to 6 mm wide, apex 4-lobulate.

- Evergreen broad-leaved forests; 2000–2200 m. Yunnan.

**71. *Scutellaria quadrilobulata*** Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 41. 1966.

四裂花黄芩 si lie hua huang qin

Herbs perennial, rhizomatous, stoloniferous, pubescent or pilose. Stems erect, (30)–45–60 cm tall, pubescent, branched above middle. Petiole to 2 cm, pubescent; leaf blade ovate, ca. 4×2.6 cm, largest at mid stem, adaxially sparsely pubescent or pilose, abaxially sometimes purplish and subglabrous or sparsely pilose, base truncate to roundish and slightly decurrent, margin 5–8-double crenate, apex obtuse to acute. Racemes terminal, to 10 cm; lower bracts similar to stem leaves, smaller upward, ovate to ovate-lanceolate, margin entire to ± inconspicuously crenate and ciliolate. Pedicel ca. 3 mm, pubescent. Calyx purple, ca. 2.2 mm, glabrous outside, veins and margin pubescent, oblate, ca. 3.5×4.5 mm in fruit; scutellum ca. 1.5×1.5 mm. Corolla yellow with purple lines, ca. 2 cm, densely glandular pubescent outside, glabrous inside; tube ca. 1.7 cm, base slightly saccate-geniculate; upper lip oblate, concave, ca. 2.2

mm wide, apex emarginate; middle lobe of lower lip trapeziform, equally 4-lobed, ca. 4.5 mm wide; lateral lobes subcircular, subequal to upper lip. Nutlets unknown. Fl. Jun-Aug.

• Forested and grassy slopes; 2000–3000 m. Guizhou, Hubei, Sichuan, Yunnan.

- 1a. Plants pubescent; leaves adaxially sparsely pubescent, abaxially subglabrous, veins only slightly elevated; racemes lax, bracts entire ..... 71a. var. *quadrilobulata*  
1b. Plants pilose; leaves sparsely pilose, veins conspicuously elevated abaxially; racemes compact, bracts inconspicuously crenate ..... 71b. var. *pilosa*

#### 71a. *Scutellaria quadrilobulata* var. *quadrilobulata*

四裂花黄芩 *si lie hua huang qin*

Plants pubescent. Leaves sparsely pubescent adaxially, subglabrous and with slightly elevated veins abaxially. Racemes lax; bracts entire.

• Forested and grassy slopes; 2000–3000 m. Hubei, Sichuan, Yunnan.

Used medicinally as a diaphoretic.

#### 71b. *Scutellaria quadrilobulata* var. *pilosa* C. Y. Wu & S. Chow, Fl. Reipubl. Popularis Sin. 65(2): 583. 1977.

硬毛变种 *ying mao bian zhong*

Plants pilose. Leaves sparsely pilose, veins conspicuously elevated abaxially. Racemes compact; bracts ± inconspicuously crenate.

• Slopes; 2000 m. Guizhou, Yunnan.

#### 72. *Scutellaria tenuiflora* C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 584. 1977.

细花黄芩 *xi hua huang qin*

Herbs rhizomatous. Stems erect, densely floccose-pilose, unbranched, leafy apically. Petiole 0.8–2.3(–3) cm, white floccose-pilose; leaf blade ovate, 3–7×1.5–4.5 cm, thin, papery, adaxially sparsely pilose, abaxially densely pilose, base obliquely cordate, margin coarsely crenate-serrate, apex acute. Racemes terminal, axillary, 2.5–7 cm, all above mid stem; bracts petiolate, linear, ca. 2 mm, pilose. Pedicel ca. 3 mm, densely glandular pilose. Fruiting calyx ca. 4 mm, glandular pilose outside; scutellum ca. 2 mm. Corolla not seen. Nutlets black, ca. 2×0.5 mm, tuberculate, adaxially umbonate near base. Fr. Jul-Aug.

• Valleys; 1500 m. Shaanxi.

#### 73. *Scutellaria honanensis* C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 584. 1977.

河南黄芩 *he nan huang qin*

Herbs perennial, rhizomatous. Stems erect, ca. 70 cm tall, densely antrorse puberulent, unbranched, internodes slightly longer than leaves, ca. 6.5 cm at mid stem. Leaves deciduous basally; petiole ca. 1.5 cm at mid stem; leaf blade lanceolate-ovate, 4–5.5×2–5.5 cm, adaxially sparsely puberulent, abaxially very densely purple glandular, veins densely pubescent, base shallowly cordate, margin irregularly serrate, apex acuminate to caudate-acuminate. Racemes terminal and axillary, to 6 cm, few flowered, axillary racemes

each with a basal pair of leaves; bracts lanceolate to linear, 0.4–1.3 cm×1–4 mm, margin remotely dentate to entire. Pedicel to 3 mm, densely glandular puberulent. Calyx ca. 4 mm, densely glandular puberulent outside; scutellum ca. 1.5 mm. Corolla purple, ca. 1.3 cm, glandular pubescent outside, glabrous inside; tube erect, slightly saccate; middle lobe of lower lip ovate, ca. 4 mm wide, margin subentire; lateral lobes ovate, ca. 1.5 mm wide. Fl. May.

• Hillsides; 500 m. Henan, Hubei.

#### 74. *Scutellaria omeiensis* C. Y. Wu, Fl. Reipubl. Popularis Sin. 65(2): 584. 1977.

峨眉黄芩 *e mei huang qin*

Herbs perennial, rhizomatous, stoloniferous. Stems erect, 50–100 cm tall, rooting at basal nodes. Petiole to 1.7 cm at mid stem; leaf blade ovate, 2.5–5×1.5–3.6 cm, largest at mid stem, papery, sparsely and finely white pilose adaxially and along veins abaxially, base truncate and decurrent, apex acuminate. Racemes terminal and axillary, 3.5–9 cm, few flowered, axillary racemes with a basal pair of leaves; rachis densely puberulent; bracts mostly sessile, ovate, sparsely white puberulent, 4–7 mm, short petiolate basally. Pedicel ca. 3 mm, densely glandular puberulent. Calyx ca. 2.5 mm, ca. 4 mm in fruit, glandular puberulent outside, margin pilose; scutellum well developed, ca. 2.2 mm, erect, obovate, to 5 mm in fruit. Corolla yellow to purple red, 2.2–2.5 cm, glandular pubescent outside, glabrous inside, base slightly bent; upper lip semicircular, ca. 2.8 mm wide; middle lobe of lower lip triangular-ovate, base ca. 4.5 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets unknown. Fl. Jun-Jul, fr. Jul-Aug.

• Subtropical, evergreen broad-leaved forests; 1500–3000 m. Guizhou, Hubei, Sichuan.

- 1a. Stems obtusely 4-angled, subglabrous except densely appressed white pilose on angles, green; leaves crenate ..... 74a. var. *omeiensis*  
1b. Stems acutely 4-angled, slightly winged along angles, subglabrous, purple; leaves coarsely acutely serrate or sometimes acutely double serrate ..... 74b. var. *serratifolia*

#### 74a. *Scutellaria omeiensis* var. *omeiensis*

峨眉黄芩 *e mei huang qin*

Stems obtusely 4-angled, subglabrous except densely appressed white pilose on angles, green. Leaves crenate.

• Subtropical, evergreen broad-leaved forests; 1600–3000 m. Sichuan.

#### 74b. *Scutellaria omeiensis* var. *serratifolia* C. Y. Wu & S. Chow, Fl. Reipubl. Popularis Sin. 65(2): 584. 1977.

锯齿变种 *ju ye bian zhong*

Stems acutely 4-angled, slightly winged on angles, subglabrous, purple. Leaves coarsely serrate or sometimes double serrate.

• Subtropical broad-leaved forests; 1500–2500 m. Guizhou, Hubei, Sichuan.

Used medicinally.

#### 75. *Scutellaria scandens* D. Don, Prodr. Fl. Nepal. 110. 1825.

棱茎黄芩 *leng jing huang qin*

*Scutellaria angulosa* Benth; *S. celtidifolia* A. Hamilton.

Herbs erect. Stems obtusely winged, subglabrous except for pubescent nodes, much branched, nearly finely patent pilose. Petiole 0.4–1 cm, densely fine retrorse pilose; leaf blade ovate, 2.5–5×0.5–3 cm, herbaceous, adaxially sparsely strigose, abaxially subglabrous, veins finely pilose, base shallowly cordate to subrotund, margin coarsely crenate, apex acute. Racemes terminal on lateral branches, 10–16 cm. Fruiting pedicel ca. 3 mm, puberulent. Fruiting calyx ca. 4 mm, very sparsely pubescent or subglabrous; scutellum flabellate, ca. 5 mm, slightly reflexed, ciliate. Corolla not seen. Nutlets black-brown, ovoid, ca. 2×0.5 mm, tuberculate. Fr. Aug.

- Slopes; 2300 m. Xizang [Nepal].

**76. *Scutellaria sessilifolia*** Hemsley, J. Linn. Soc., Bot. 26: 297. 1890.

石蜈蚣草 *shi wu gong cao*

*Scutellaria sessilifolia* f. *ramiflora* C. Y. Wu & S. Chow; *S. sessilifolia* f. *terminalis* C. Y. Wu & S. Chow.

Herbs perennial, rhizomatous, stoloniferous. Stems ascending, trailing at base, 50 cm tall, slightly winged, glabrous, unbranched, base leafless. Leaves sessile or subsessile, ovate, 1.9–3.5×0.9–2 cm, ± leathery, adaxially sparsely strigose, abaxially sometimes glabrous, base rounded to slightly amplexicaul or truncate, margin subentire, obscurely 3- or 4-crenate, or remotely acutely serrate, apex acute to caudate-acuminate. Racemes 3–7-flowered, pendent, secund, almost 2×as long as leaves, in axils of mid stem leaves, sometimes also terminal; bracts ovate-subulate, glandular pubescent. Pedicel ca. 2.5 mm, glandular pubescent. Calyx ca. 2 mm, ca. 3.5 mm in fruit, slightly glandular pubescent; scutellum ca. 1.5 mm, to 3.5 mm in fruit. Corolla purplish to purple red, base white, ca. 1.8 cm, sparsely glandular puberulent outside, glabrous inside; tube base saccate-spurred, spur to 2 mm, throat to 3.5 mm wide; middle lobe of lower lip triangular-ovate, ca. 5 mm wide, apex rounded. Fl. Jun–Aug. fr. Aug–Sep.

- Subtropical valley forests, thickets, wet rocky mountain slopes; 800–2600 m. Sichuan.

**77. *Scutellaria caudifolia*** Sun ex C. H. Hu, Acta Phytotax. Sin. 11: 42. 1966.

尾叶黄芩 *wei ye huang qin*

Herbs perennial, rhizomatous. Rhizomes robust. Stems erect, 30–45 cm tall, angles slightly winged, purplish, with 4–9 pairs of leaves, internodes to as long as leaves. Petiole 4–7 mm; leaf blade ovate-oblong to oblong-lanceolate, ca. 5–8×2–3.5 cm, membranous or thin papery, base shallowly cordate, sometimes obliquely so, margin irregularly crenate, apex caudate-acuminate. Racemes axillary and terminal, 6–14-flowered, ca. 4–10 cm, axillary racemes with 2–4 pairs of reduced lower leaves; bracts gradually reduced upward, sessile, caudate-acuminate, margin ciliolate upward. Pedicel ca. 2.5–3 mm, densely glandular pubescent. Calyx ca. 2 mm, pubescent, to 3.5 mm in fruit; scutellum ca. 1.2 mm, to 2.5 mm, conspicuously netted in fruit. Corolla purplish, ca. 2.2 cm, sparsely glandular puberulent outside, glabrous inside; tube base saccate-spurred, to 3 mm wide, throat abruptly

dilated to 5 mm wide; upper lip subcircular; middle lobe of lower lip triangular-ovate, to 5 mm wide, apex emarginate; lateral lobes ovate to circular. Nutlets unknown. Fl. Jun - Aug.

- Forest margins, slopes, hillside thickets; 900–1700 m. Guizhou, Sichuan.

- 1a. Plants glabrous or subglabrous; leaves papery, glabrous or very sparsely strigose, margin 9–15-crenate, base shallowly cordate; bracts ovate-orbicular; lateral lobes of lower lip of corolla ovate, apex round ..... 77a. var. *caudifolia*
- 1b. Plants pilose; leaves membranous, sparsely appressed white pilose, 18-crenate or more, base obliquely shallowly cordate; bracts ovate-lanceolate; lateral lobes of lower lip of corolla circular, apex emarginate ..... 77b. var. *obliquifolia*

**77a. *Scutellaria caudifolia* var. *caudifolia***

尾叶黄芩 *wei ye huang qin*

Plants glabrous or subglabrous. Leaves thin, papery, base shallowly cordate, glabrous or sparsely strigose, margin 9–15-crenate. Bracts ovate-orbicular. Lateral lobes of lower lip of corolla ovate, apex rounded.

- Forest margins, slopes; 900–1700 m. Guizhou, Sichuan.

**77b. *Scutellaria caudifolia* var. *obliquifolia*** C. Y. Wu & S. Chow, Fl. Reipubl. Popularis Sin. 65(2): 585. 1977.

斜叶变种 *xie ye bian zhong*

Plants pilose. Leaves membranous, base obliquely and shallowly cordate, sparsely appressed white pilose, margin 18-crenate or more. Bracts ovate-lanceolate. Lateral lobes of lower lip of corolla circular, apex emarginate.

- Hillside thickets; 1300 m. Sichuan (Xingwen Xian).

**78. *Scutellaria delavayi*** H. Léveillé, Repert. Spec. Nov. Regni Veg. 9: 221. 1911.

方枝黄芩 *fang zhi huang qin*

*Scutellaria sessilifolia* Hemsley var. *delavayi* (H. Léveillé) Doan.

Herbs perennial. Stems erect, 25–60 cm tall, angles slightly winged, glabrous except nodes sometimes puberulent, much branched. Petiole 1–3 mm, glabrous; leaf blade ovate to lanceolate, 2–7×1.3–3 cm, papery, glabrous, base broadly cuneate to roundish, margin remotely undulate-denticulate, apex caudate-acuminate. Racemes terminal or abruptly reflexed and axillary; rachis puberulent; bracts conspicuous, ovate to lanceolate, 3–8 mm, glabrous, margin entire. Pedicel ca. 3 mm, puberulent, sometimes also pubescent. Calyx ca. 3 mm, finely puberulent outside, to 5 mm in fruit; scutellum ca. 1.5 mm, to 4.5 mm in fruit. Corolla cream yellow to white, ca. 2.3 cm, sparsely glandular pubescent outside, glabrous inside; tube base saccate, throat to 6 mm wide; middle lobe of lower lip triangular-ovate, to 8 mm wide at base, apex emarginate; lateral lobes narrowly triangular. Nutlets black, ovoid, ca. 1 mm in diam., tuberculate, adaxially umbonate on base. Fl. Apr–May, fr. May–Jun.

- Subtropical, montane, broad-leaved forests, thickets; 1000–1600 m. Hunan, Sichuan, Yunnan.

**79. *Scutellaria galericulata*** Linnaeus, Sp. Pl. 2: 599. 1753.

盔状黄芩 *kui zhuang huang qin*

Herbs perennial, rhizomatous. Stems erect, 35–40 cm tall, slightly grooved, glabrous except for sparsely retrorse pubescent angles, leafless basally, much branched upward. Petiole 2–7 mm; leaf blade oblong-lanceolate, 1.5–6×0.8–3 cm, larger basally, membranous to papery, pubescent, base shallowly cordate, margin crenate-serrate, apex acute. Flowers axillary on apical part of stem, secund; pedicel ca. 2 mm, densely retrorse pubescent. Calyx ca. 3.5 mm, densely white pubescent outside, to 5 mm in fruit; scutellum ca. 0.8 mm, erect, to 1.5 mm in fruit. Corolla purple to blue, ca. 1.8 cm, glandular pubescent outside, lips partly puberulent; tube base slightly saccate, throat 3.5–5 mm wide; upper lip semicircular, ca. 2.5 mm wide; middle lobe of lower lip triangular-ovate, apex emarginate; lateral lobes oblong, ca. 1.5 mm wide. Nutlets yellow, triquetrous, ovoid, ca. 1 mm in diam., tuberculate, adaxially umbonate at middle. Fl. Jun-Jul, fr. Jul-Aug.

Alluvial soils; 400–1100 m. Nei Mongol, Shaanxi, Xinjiang [Japan, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Turkmenistan, Uzbekistan; SW Asia, Europe, North America].

**80. *Scutellaria regeliana*** Nakai, Bot. Mag. (Tokyo) 35: 197. 1921.

狭叶黄芩 xia ye huang qin

Herbs perennial, rhizomatous, stoloniferous. Stems erect, 26–30 cm tall, occasionally with long prostrate branches from base. Petiole 0.5–1 mm, densely short hairy; leaf blade lanceolate to triangular-lanceolate, 1.7–3.3 cm × 3–6 mm, base shallowly cordate to subtruncate, margin entire and involute, apex obtuse. Flowers axillary on apical part of stem, secund. Pedicel ca. 4 mm, densely puberulent. Calyx ca. 4 mm, densely pubescent outside, to 6 mm in fruit; scutellum ca. 0.5 mm, to 1 mm in fruit. Corolla purple, 2–2.5 cm, pubescent outside, apically sparsely pilose inside, throat to 8 mm wide; middle lobe of lower lip suboblate, ca. 9 mm wide, margin entire; lateral lobes oblong, ca. 3.5 mm wide. Nutlets yellow-brown, ovoid, ca. 1.25×1 mm, tuberculate, adaxially umbonate at base. Fl. Jun-Jul, fr. Jul-Sep.

• Riverbanks, marshy areas; 500–1000 m. Hebei, Heilongjiang, Jilin, Nei Mongol [Korea, Mongolia, Russia].

- 1a. Stems with upwardly curved hairs especially on angles; adaxial leaf surface densely strigose, abaxial surface densely puberulent and sparsely fine granular glandular ..... 80a. var. *regeliana*
- 1b. Stems with appressed very short hairs only on angles; adaxial leaf surface glabrous or sparsely fine strigose, abaxial surface sparsely fine granular glandular, veins and margin with appressed, very short hairs ..... 80b. var. *ikonnikovii*

**80a. *Scutellaria regeliana* var. *regeliana***

狭叶黄芩 xia ye huang qin

*Scutellaria galericulata* Linnaeus var. *angustifolia* Regel; *S. angustifolia* (Regel) V. Komarov.

Stems with upwardly curved hairs especially along angles. Leaves adaxially densely strigose, abaxially densely puberulent, fine sparsely granular glandular.

• Riverbanks, marshy areas; 500–1000 m. Hebei, Heilongjiang, Jilin, Nei Mongol [Korea, Russia].

**80b. *Scutellaria regeliana* var. *ikonnikovii*** (Juzepczuk) C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 226. 1977.

塔头变种 ta tou bian zhong

*Scutellaria ikonnikovii* Juzepczuk, Bot. Mater Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 14: 358. 1951; *S. angustifolia* (Regel) V. Komarov, p.p.

Stems with appressed, very short pubescence only on angles. Leaves glabrous or adaxially sparsely fine strigose, abaxially with appressed, very short pubescence on veins and margin, otherwise sparsely fine granular glandular.

• Riverbanks, marshy sedge-grasslands; 500 m. Heilongjiang, Jilin, Nei Mongol [Mongolia, Russia].

**81. *Scutellaria linarioides*** C. Y. Wu, Fl. Yunnan. 1: 564. 1977.

长叶并头草 chang ye bing tou cao

Herbs rhizomatous perennials, woody, branched, 12–35 cm tall. Stems purplish, glabrous to sparsely pubescent or subglabrous upward, unbranched. Leaves sessile to subsessile, oblong to narrowly lanceolate, 1.5–3.3 cm × 2–5(–7) mm, yellow glandular, subglabrous or abaxially sparsely pubescent only on veins, base attenuate, margin entire or 1-serrulate and involute, apex rounded to somewhat obtuse. Racemes poorly defined, terminal, secund, obliquely spreading upward; floral leaves linear, 0.8–2.5 cm; bracteoles needlelike, ciliolate, inserted on apical 1/3 of pedicels in pairs. Flowers axillary. Pedicel 1.5–2.5 mm, finely puberulent. Calyx 2–2.5 mm, finely puberulent, to 4 mm in fruit; scutellum ca. 1 mm, to 2 mm in fruit. Corolla purple-red, 2–2.2 cm, densely puberulent outside, pilose on conjunctive parts of upper lip and lateral lobes of lower lip inside; tube slightly saccate in front at base, ca. 1.5 mm in diam., gradually dilated to 4 mm at throat; upper lip ca. 2.5 mm; middle lobe of lower lip broadly triangular, to 7 mm wide, margin subentire; lateral lobes triangular-ovate, ca. 2 mm wide. Nutlets unknown. Fl. Mar-Jul, fr. Apr-Aug.

• Wet slopes; 1200 m. Sichuan, Yunnan.

**82. *Scutellaria dependens*** Maximowicz, Prim. Fl. Amur. 219. 1859.

纤弱黄芩 qian ruo huang qin

*Scutellaria nipponica* Franchet & P. A. L. Savatier; *S. oldhamii* Miquel.

Herbs rhizomatous. Stems ± erect, 15–35 cm tall, glabrous or sparsely pubescent on angles, unbranched or few branched from base. Petiole 0.8–4 mm, puberulent or subglabrous; leaf blade ovate-triangular to triangular, 0.5–2.4 cm × 3–12 mm, membranous, adaxially sparsely puberulent, abaxially puberulent only on veins, base shallowly cordate to truncate-cordate, margin irregularly and shallowly 1–3-dentate to subentire and ciliolate, apex obtuse to rounded. Racemes poorly defined, terminal, obliquely spreading upward initially, becoming pendent; bracteoles needlelike, ca. 0.75 mm, inserted at base of pedicels in pairs. Flowers axillary. Pedicel 2–3 mm, appressed puberulent. Calyx 1.8–2 mm, conspicuously veined, ciliolate on veins and margin, to 4 mm in fruit; scutellum ca. 1 mm, to 2 mm in fruit. Corolla white or white with purple on lower lip, 5–6.5 mm, puberulent outside, pilose only on middle of lower lip inside; tube slightly curved; middle lobe of lower lip spreading

upward, trapeziform, ca. 1.5×2–2.5 mm, apex emarginate; lateral lobes triangular-ovate, slightly longer than upper lip. Nutlets yellow-brown, ovoid, ca. 0.7×0.5 mm, tuberculate, adaxially slightly swollen, umbonate near base. Fl. and fr. Jun-Sep.

• Streamsides, wet areas in larch forests; to 300 m. Heilongjiang, Jilin, Nei Mongol, Shandong [Japan, Korea, Russia].

**83. *Scutellaria shansiensis*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 586. 1977.

山西黄芩 *shan xi huang qin*

Herbs rhizomatous. Stems erect, 14–20 cm tall, ca. 1 mm in diam., sparsely pilose along angles, unbranched. Petiole 1.5–7 mm, pilose; leaf blade cordate, 0.7–1.3×0.8–1.2 cm, thin papery, pilose, base shallowly cordate, margin 4- or 5-crenate-serrate, apex obtuse to acute. Bracteoles needlelike, less than 0.5 mm, inserted at base of pedicels in pairs. Flowers axillary. Pedicel ca. 3 mm, pilose. Calyx ca. 3 mm, finely pilose; scutellum ca. 0.3 mm. Corolla purplish, 9–10 mm, puberulent outside, sparsely pilose only on lower lip inside; tube slightly curved, ca. 1.5 mm wide, gradually dilated to 3.5 mm wide at throat; middle lobe of lower lip spreading upward, trapeziform, ca. 3.5×5 mm, apex emarginate; lateral lobes ovate, almost as long as upper lip. Fl. May-Jun.

• Shady areas in valleys; 1500 m. Shanxi.

**84. *Scutellaria barbata*** D. Don, Prodr. Fl. Nepal. 109. 1825.

半枝莲 *ban zhi lian*

*Scutellaria adenophylla* Miquel; *S. cavaleriei* H. Léveillé & Vaniot; *S. komarovii* H. Léveillé & Vaniot; *S. minor* Linnaeus var. *indica* Benth; *S. rivularis* Wallich ex Benth.

Stems erect, 12–35(–55) cm tall, glabrous or sparsely appressed pubescent upward. Petiole 1–3 mm, concave-convex, sparsely pubescent; leaf blade triangular-ovate to ovate-lanceolate, 1.3–3.2×0.5–1(–1.4) cm, subglabrous to sparsely appressed pubescent along veins, base broadly cuneate to subtruncate, margin remotely and obtusely shallowly dentate, apex acute. Racemes poorly defined, terminal; floral leaves similar to stem leaves, to 8 mm basally, much reduced and elliptic to narrowly elliptic upward, adaxially sparsely pubescent, abaxially sparsely pubescent only on veins; bracteoles needlelike, ca. 0.5 mm, inserted at middle of pedicels. Flowers axillary. Pedicel 1–2 mm, puberulent. Calyx ca. 2 mm, puberulent along veins outside, margin ciliolate, to 4.5 mm in fruit; scutellum ca. 1 mm, to 2 mm in fruit. Corolla purple blue, 0.9–1.3 cm, pubescent outside, sparsely pilose on throat inside; tube saccate in front at base, ca. 1.5 mm wide at middle, gradually dilated to 3.5 mm wide at throat; upper lip semicircular, ca. 1.5 mm; middle lobe of lower lip trapeziform, ca. 2.5×4 mm, margin entire; lateral lobes triangular-ovate, ca. 1.5 mm wide, apex acute. Nutlets brown, obovate, ca. 1 mm in diam., warty. Fl. and fr. Apr-Jul.

• Margins of rice paddies, streamsides, wet grasslands; to 2000 m. Fujian, Guangdong, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Shaanxi, Shandong, Sichuan, Taiwan, Yunnan, Zhejiang [India, Japan, Korea, Laos, Myanmar, Nepal, Thailand, Vietnam].

Used medicinally for traumatic injuries and to reduce inflammation caused by various diseases.

**85. *Scutellaria scordifolia*** Fischer ex Schrank, Denkschr. Bayer. Bot. Ges. Regensburg 2: 55. 1822.

并头黄芩 *bing tou huang qin*

Herbs rhizomatous. Stems purplish, erect, 12–36 cm tall, subglabrous to upwardly curved pubescent or densely strigose especially upward. Petiole 1–3 mm, pubescent; leaf blade linear to triangular-ovate, 1.5–3.8×0.2–1.4 cm, adaxially glabrous, densely strigose, or densely appressed pubescent, abaxially sparsely appressed puberulent except on veins or sparsely pubescent along midrib and veins, sometimes subglabrous, glandular or not, margin shallowly dentate or occasionally subentire. Racemes poorly defined, terminal, secund; bracteoles needlelike, ca. 1 mm, inserted near base of pedicels in pairs. Flowers axillary. Pedicel 2–4 mm, pubescent. Calyx 3–4 mm, pubescent outside, ciliate, to 4.5 mm in fruit; scutellum ca. 1 mm, to 2 mm in fruit. Corolla blue-purple, 2–2.2 cm, pubescent outside, glabrous inside; tube saccate-geniculate in front, base ca. 2 mm wide, gradually dilated to 6.5 mm wide at throat; middle lobe of lower lip circular-ovate, ca. 7 mm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide, apex emarginate. Nutlets black, ellipsoid, ca. 1.5×1 mm, tuberculate, adaxially umbonate near base. Fl. Jun-Aug, fr. Aug-Sep.

• Deciduous broad-leaved forests, pine forests, marshy grasslands, grassy slopes; to 2100 m. Gansu, Hebei, Heilongjiang, Henan, Liaoning, Nei Mongol, Qinghai, Shaanxi, Shanxi [Japan, Mongolia, Russia].

- 1a. Stems subglabrous or hairy only on angles.
  - 2a. Stems subglabrous or angles with sparse, upwardly curved puberulent hairs; leaves triangular-ovate to lanceolate, 4–14 mm wide.
  - 3a. Adaxial leaf surface glabrous
    - ..... 85a. var. *scordifolia*
    - 3b. Adaxial leaf surface sparsely appressed puberulent ..... 85b. var. *puberula*
  - 2b. Stem angles sparsely retrorse puberulent; leaves lanceolate-linear to linear, 0.2–0.6 cm wide
    - ..... 85d. var. *ammophila*
- 1b. Stems uniformly densely strigose or upwardly curved pubescent especially apically.
  - 4a. Stems and adaxial leaf surfaces densely strigose
    - ..... 85c. var. *wulingshanensis*
  - 4b. Stems and adaxial leaf surfaces densely appressed pubescent ..... 85e. var. *villosissima*

**85a. *Scutellaria scordifolia* var. *scordifolia***

并头黄芩 *bing tou huang qin*

*Scutellaria galericulata* Linnaeus var. *scordifolia* Regel; *S. scordifolia* f. *glabrescens* Franchet; *S. scordifolia* var. *subglabra* V. Komarov.

Stems subglabrous or with sparse, upwardly curved, puberulent hairs on angles. Leaves triangular-ovate to lanceolate, 4–14 mm wide, adaxially glabrous, abaxially sparsely pubescent only on midrib and veins, sometimes subglabrous.

• Marshy grasslands; to 2100 m. Hebei, Heilongjiang, Nei Mongol, Qinghai, Shanxi [Japan, Mongolia, Russia].

Rhizome used medicinally; leaves used as tea.

**85b. *Scutellaria scordifolia* var. *puberula*** Regel ex V. Komarov, Trudy Imp. S.-Peterburgsk. Bot. Sada 25: 344. 1907.

微柔毛变种 *wei rou mao bian zhong*

Stems with dense, upwardly curved puberulent hairs on angles. Leaves triangular-ovate to lanceolate, 4–14 mm wide, sparsely appressed puberulent except on veins of abaxial surface.

• Grassy slopes, marshy grasslands; to 1400 m. Hebei, Heilongjiang, Nei Mongol, Shanxi.

**85c. *Scutellaria scordifolia* var. *wulingshanensis*** (Nakai & Kitagawa) C. Y. Wu & W. T. Wang, Fl. Reipubl. Popularis Sin. 65(2): 233. 1977.

雾灵山变种 *wu ling shan bian zhong*

*Scutellaria wulingshanensis* Nakai & Kitagawa, Rep. Exped. Manchoukuo Sect. IV, 1: 53. 1934.

Stems densely strigose. Leaves triangular-ovate to lanceolate, 4–14 mm wide, adaxially densely strigose.

• Deciduous broad-leaved forests; 1500–1700 m. Hebei, Shanxi.

**85d. *Scutellaria scordifolia* var. *ammophila*** (Kitagawa) C. Y. Wu & W. T. Wang, Fl. Reipubl. Popularis Sin. 65(2): 234. 1977.

喜沙变种 *xi sha bian zhong*

*Scutellaria scordifolia* var. *subglabra* V. Komarov f. *ammophila* Kitagawa, Lin. Fl. Manshur. 386. 1939.

Stems sparsely retrorse puberulent only on angles. Leaves linear-lanceolate to linear, 1.4–4 cm × 2–6 mm, adaxially glabrous, abaxially sparsely puberulent on veins, densely impressed glandular, margin entire to remotely few crenate, apex obtuse.

• Hebei, Heilongjiang, Liaoning, Nei Mongol, Shaanxi.

**85e. *Scutellaria scordifolia* var. *villosissima*** C. Y. Wu & W. T. Wang, Fl. Reipubl. Popularis Sin. 65(2): 234. 1977.

多毛变种 *duo mao bian zhong*

Stems with dense, upwardly curved pubescence especially apically and on angles. Leaves triangular-ovate to lanceolate, 4–14 mm wide, densely appressed pubescent.

• Grassy slopes, pine forests; 1500–1900 m. Gansu, Henan, Qinghai, Shaanxi, Shanxi.

**86. *Scutellaria strigillosa*** Hemsley, J. Linn. Soc., Bot. 26: 297. 1890.

沙滩黄芩 *sha tan huang qin*

*Scutellaria schmidtii* Kudô; *S. scordifolia* Fischer ex Schrank var. *hirta* F. Schmidt; *S. taquetii* H. Léveillé & Vaniot.

Herbs perennial. Rhizomes producing stolons from nodes. Stems purplish, erect to slightly curved, 8–24(–35) cm tall, sparsely and upwardly curved strigose-pubescent to hirsute especially on nodes and angles. Petiole 5–6.5 mm basally, 1–2 mm upward, hirsute; leaf blade elliptic, rarely narrowly elliptic, 1–2.5 cm × 3–15 mm, thin, papery, densely appressed strigose-hirsute, abaxially densely impressed glandular, base shallowly cordate to subtruncate, margin shallowly obtuse dentate, sometimes serrate to subentire, apex obtuse to rounded. Racemes poorly defined, terminal; bracteoles needlelike, ca. 1 mm, inserted on basal 1/4 of pedicels. Flowers axillary. Pedicel 2.5–3.5(–5) mm, densely appressed pubescent. Calyx 3–3.5 mm, densely strigose-

hirsute, to 6 mm in fruit; scutellum inconspicuous, less than 1 mm, ca. 1.5 mm in fruit. Corolla purple, 1.6–1.8(–2.4) cm, glandular pubescent outside, glabrous inside; tube slightly saccate in front at base, 1.5(–2.5) mm wide at middle, gradually dilated upward, to 5(–6) mm wide at throat; middle lobe of lower lip longer than upper lip, broadly ovate, ca. 8 mm wide, apex emarginate; lateral lobes shorter than upper lip, narrowly ovate, apex subtruncate. Nutlets yellow-brown, subglobose, ca. 1.25 mm in diam., densely tuberculate, adaxially umbonate. Fl. and fr. May–Oct.

• Beaches. Hebei, Jiangsu, Liaoning, Shandong, Zhejiang [Japan, Korea, Russia].

**87. *Scutellaria tuminensis*** Nakai, Bot. Mag. (Tokyo) 35: 198. 1921.

图们黄芩 *tu men huang qin*

Rhizomes white. Stems purple, to 35 cm tall, finely pilose, pubescent on nodes. Leaves short petiolate to subsessile, ovate to oblong-ovate, 2–3 × ca. 1.3 cm, fine glandular abaxially, base obscurely subhastate, white hirtellous, apex somewhat obtuse. Flowers solitary, axillary. Pedicel ca. 2 mm, spreading glandular villous. Calyx obconical-campanulate, spreading glandular villous, 4–5 mm. Corolla purple-blue, 1.4(–2.5) mm; tube narrow, gradually dilated, glandular pubescent outside; lower lip longer than upper lip. Stamens slightly exerted; anthers pilose (no material seen).

• Riverside grasslands; to 600 m. Jilin (Tumen Jiang) [Russia].

**88. *Scutellaria moniliorrhiza*** V. Komarov, Trudy Imp. S.-Peterburgsk. Bot. Sada 25: 346. 1907.

念珠根茎黄芩 *nian zhu gen jing huang qin*

Herbs perennial. Rhizomes white, moniliform with tuberlike internodes to 6 mm in diam., stoloniferous. Stems purplish, erect, (12–)20–36 cm tall, glabrous except for white pilose nodes. Petiole 1.5–4 mm, white pilose on margin of groove of abaxial side, glabrous abaxially; leaf blade ovate to ovate-oblong, 0.8–2.3 cm × 3–13 mm, adaxially glabrous or sparsely white pilose, abaxially purplish, sparsely pilose on veins otherwise densely glandular, base rounded to shallowly cordate, margin 3–7-crenate, apex acute to obtuse. Racemes poorly defined, terminal; bracteoles linear, inserted on basal 1/3 of pedicels in pairs. Flowers few, axillary. Pedicel ca. 4 mm, sparsely pubescent. Calyx 3(–4) mm, glabrous or slightly puberulent, white pilose along margin, slightly enlarged, to 5 mm in fruit; scutellum ca. 1 mm, ca. 1.5 mm in fruit. Corolla blue, ca. 3.2 cm, puberulent outside, white villous on conjunctive parts of upper lip and lateral lobes of lower lip inside; tube saccate in front at base, ca. 2 mm wide at middle, gradually dilated to 8 mm wide at throat; middle lobe of lower lip subcircular, to 1 cm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide, apex emarginate. Nutlets brownish, ellipsoid, ca. 1 × 0.75 mm, tuberculate. Fl. Jul–Aug, fr. Aug–Sep.

• Gravelly springsides, grassy places, marshes. 1000 m. Jilin [Korea, Russia].

**89. *Scutellaria sieversii*** Bunge, Fl. Altaic. 2: 394. 1830.

宽苞黄芩 *kuan bao huang qin*

*Scutellaria albertii* Juzepczuk; *S. krylovii* Juzepczuk; *S. soongorica* Juzepczuk; *S. soongorica* var. *grandiflora* C. Y. Wu & H. W. Li; *S. transiliensis* Juzepczuk.

Subshrubs perennial. Rhizomes woody. Stems purplish, 9–32 cm tall, ascending, erect to curved, sometimes flexuous, branched basally, sparsely and finely minute tomentose. Petiole 2–13 mm, sparsely fine minute tomentose; leaf blade broadly ovate to elliptic, 0.6–2.2×0.5–1.5 cm, adaxially sparsely fine tomentose, abaxially densely appressed white or gray tomentose, lateral veins inconspicuous to slightly conspicuous abaxially, base truncate to obtuse, margin 4–6-incised-serrate, apex obtuse. Racemes 2.5–12 cm, somewhat lax after anthesis; bracts ovate to broadly ovate, attenuate on both extremes, to 1.5×1 cm, ± membranous, sparsely or densely villous, intermixed with few short stipitate glandular hairs, apex subacute. Calyx ca. 2 mm, densely villous outside, glandular hairy, to 4.5 mm in fruit; scutellum ca. 1 mm, to 3.5 mm in fruit. Corolla yellow or yellowish, 2.2–3 cm, stipitate glandular outside; tube saccate in front at base, ca. 1.3 mm wide at middle, to 5 mm wide at throat; middle lobe of lower lip broadly ovate, apex emarginate, lateral lobes ovate. Nutlets 1.5–2 mm. Fl. May–Aug, fr. Aug–Sep.

• Dry gravelly sunny slopes; 700–1000 m. Xinjiang [Kazakhstan, Russia].

**90. *Scutellaria przewalskii*** Juzepczuk, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 14: 400. 1951.

深裂叶黄芩 *shen lie ye huang qin*

Subshrubs perennial. Rhizomes woody, to 1.5 cm in diam., flexuous. Stems purplish, numerous, 6–22 cm tall, ascending to subprostrate, flexuous, ca. 1.5 mm in diam., sparsely fine minute tomentose. Petiole (1.5–)5–10(–14) mm, flat, narrowly winged, tomentose; leaf blade ovate to elliptic, (0.6–)1.2–2.2×(0.4–)0.8–1.5(–2.2) cm, adaxially sparsely tomentose, abaxially densely gray tomentose, lateral veins conspicuously impressed adaxially, base subtruncate, margin 4–7-pinnatifid, apex acute; segments fingerlike, 2–6(–8)×ca. 1 mm. Racemes 2.5–5 cm, to 7 cm in fruit; bracts purplish upward, broadly ovate, (8–)12–15 cm×6–10 mm, ± membranous, apex acute to acuminate, villous sometimes intermixed with short-stipitate glandular hairs, apex acute to acuminate. Pedicel ca. 5 mm, villous. Calyx ca. 2 mm, villous outside, stipitate glandular hairy, ca. 4 mm in fruit; scutellum ca. 1.5 mm, ca. 4 mm in fruit. Corolla yellow or yellow with purple on limb, 2.5–3.3 cm, pilose outside, short stipitate glandular hairy; tube saccate in front at base, ca. 1.5 mm wide at middle, gradually dilated upward, to 7 mm wide at throat; middle lobe of lower lip broadly ovate, apex emarginate; lateral lobes ovate. Nutlets triquetrous, ovoid, ca. 1.5×1 mm, densely gray tomentose, adaxially umbonate at basal 1/3. Fl. Jun–Aug, fr. Jul–Sep.

• Grasslands, dry gravelly open slopes, riverbank terraces, dry valleys; 900–2300 m. Gansu, Xinjiang [Kyrgyzstan].

**91. *Scutellaria supina*** Linnaeus, Sp. Pl. 2: 598. 1753.

仰卧黄芩 *yang wo huang qin*

*Scutellaria irregularis* Juzepczuk; *S. tschimganica* Juzepczuk.

Subshrubs. Rhizomes woody. Stems yellowish green or slightly purplish, numerous, 10–45 cm tall, ascending to suberect, ± appressed retrorse pubescent, spreading villous especially upward. Leaves petiolate to subsessile; basal petioles to 1.5 cm, upper ones ca. 1/2 as long as blades and pubescent as stems; leaf blade oblong-ovate to ovate, 1–4×0.6–2 cm, adaxially sparsely pilose or hirsute, abaxially sparsely pilose or hirsute along veins otherwise glandular,

lateral veins impressed adaxially, base broadly cuneate to shallowly cordate, margin shallowly 3–7-crenate-serrate, apex obtuse to sometimes acute. Racemes ca. 3 cm, lax; basal bracts ovate, to 1.4×0.9 cm, sparsely villous, stipitate glandular on veins and margin otherwise subglabrous, apex acute; upper bracts purple-red. Pedicel 2–3 mm, flat. Calyx ca. 2 mm, villous outside, short stipitate glandular; scutellum 3 mm. Corolla yellow, 2.2–3.5 cm, glandular pubescent outside; tube bent in front at base, ca. 2 mm wide at middle, gradually dilated to 6 mm wide at throat; upper lip ca. 6 mm wide; middle lobe of lower lip broadly ovate, ca. 7 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm. Nutlets triquetrous, ovoid, ca. 1.5 mm. Fl. Aug, fr. Sep.

• Hilltop grasslands; 1900 m. Xinjiang [Kazakhstan, Mongolia, Russia].

**92. *Scutellaria prostrata*** Jacquemont ex Benth, Labiat. Gen. Spec. 733. 1835.

平卧黄芩 *ping wo huang qin*

Herbs perennial. Rhizomes woody. Stems few, ca. 10 cm tall, ascending, sparsely puberulent. Leaves subsessile upward, narrowly ovate, 1.5–1.7 cm×7–9 mm, adaxially sparsely puberulent, abaxially subglabrous and glandular, base cuneate, margin remotely serrate, apex acuminate. Verticillasters numerous, crowded in terminal spikes ca. 6 cm; floral leaves broadly ovate, papery, densely pilose, long ciliate, margin subentire to slightly 1- or 2-serrate, apex acuminate. Pedicel ca. 3 mm, densely pilose. Calyx ca. 2 mm, pubescent outside; scutellum to 3 mm. Corolla yellowish, purplish on upper lip and lateral lobes of lower lip, purple spotted on middle lobe of lower lip, ca. 3 cm; tube pubescent outside, glabrous inside, slightly bent in front at base, ca. 3 mm wide at middle, gradually dilated to 5 mm wide at throat; middle lobe of lower lip subcircular, puberulent outside, glabrous inside, apex emarginate; lateral lobes near upper lip. Nutlets unknown.

• Slopes. Xinjiang (Kashi Shi) [India].

Kamelin (in litt.) believes that the taxon described here should be called *Scutellaria grandiflora* Sims (Bot. Mag. 17: t. 635. 1803). Plants from Kashi, Xinjiang, with subentire to 1- or 2-serrate bracts and less hairy leaves differ somewhat from the original description. They may represent a local variant of the species.

**93. *Scutellaria oligodonta*** Juzepczuk, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 14: 370. 1951.

少齿黄芩 *shao chi huang qin*

Subshrubs perennial. Rhizomes woody, branched, producing numerous stems. Stems purplish, 6–20 cm tall, ascending to suberect, flexuous to nearly straight, sparsely retrorse strigose, ± spreading pilose, stipitate glandular upward. Petiole 2–5 mm, strigose; leaf blade ovate, (0.4–)0.9–1.8×(0.2–)0.5–1.5 cm, sparsely strigose, stipitate glandular, base rounded to broadly cuneate, margin 1–4-crenate-serrate to occasionally entire, apex obtuse to slightly obtuse. Racemes 3–5.5 cm, compact; bracts ovate-elliptic to broadly elliptic, ca. 1.5×1 cm basally, ± herbaceous, densely spreading villous outside, stipitate glandular, base broadly cuneate, margin entire or 1- or 2-serrate basally, apex subobtuse to acute. Pedicel to 4 mm, flat, densely pubescent. Calyx ca. 2 mm, densely villous outside, stipitate glandular; scutellum ca. 3 mm. Corolla yellowish except for purplish apex of upper lip and lateral lobes of lower lip, purple spotted on lower lip, 2.5–3 cm, densely pilose outside, stipitate

glandular; tube bent in front at base, ca. 2 mm wide at middle, gradually dilated to 6 mm wide at throat; upper lip ca. 6 mm wide; middle lobe of lower lip subcircular, ca. 1 cm wide, apex emarginate; lateral lobes near upper lip, ovate, ca. 2.5 mm wide. Nutlets unknown. Fl. Jul-Aug.

• Grassy slopes, alpine grasslands, riverbank terraces; 2500–2600 m. Xinjiang [Kyrgyzstan].

Kamelin (in litt.) believes that the taxon described here should be called *Scutellaria paulsenii* Briquet (Bot. Tidsskr. 28: 233. 1908) and that true *S. oligodonta* has been included in *S. orthotricha* (species 95 in this account).

**94. *Scutellaria altaica*** Fischer ex Sweet, Brit. Flow. Gard. 45. 1823–25.

阿尔泰黄芩 a er tai huang qin

*Scutellaria altaicola* C. Y. Wu & H. W. Li; *S. lupulina* Linnaeus var. *violacea* Bunge.

Subshrubs perennial, ca. 25 cm tall. Rhizomes woody, to 1 cm in diam., tortuous. Stems numerous, base woody, prostrate to ascending, much branched; branches dark purple, tortuous, sparsely floccose pubescent, glandular. Petiole 3–12 mm, flat, finely pubescent; leaf blade ovate, 1–2×0.8–1.2 cm, adaxially sparsely pubescent, abaxially finely appressed pubescent, base broadly cuneate, margin irregularly coarsely 4–6-dentate to crenate, teeth oblong and acute to obtuse, apex acute. Racemes 3–3.5 cm; bracts largest basally, gradually reduced upward, broadly ovate, to 1.6×1.2 cm, pubescent, short stipitate glandular along veins and margin outside, apex short acuminate. Pedicel ca. 2 mm. Calyx ca. 3 mm, densely pubescent outside, glandular, to 4 mm in fruit; scutellum ca. 2 mm, to 4 mm in fruit. Corolla yellowish, 2.2–2.5 cm, pubescent outside, glandular; tube saccate-genuiculate in front at base, ca. 2 mm wide at basal 1/3, gradually dilated to 6 mm wide at throat; upper lip ca. 5 mm wide; middle lobe of lower lip broadly ovate, ca. 8 mm wide, apex emarginate; lateral lobes ovate, ca. 2 mm wide. Nutlets triquetrous, ovoid, ca. 1.5×0.75 mm, abaxially umbonate, densely gray tomentose. Fl. Jul-Aug, fr. Aug.

• Slopes; 1600–2500 m. Xinjiang.

Kamelin (in litt.) believes that this plant is not true *Scutellaria altaica*, which has a violet corolla, but rather *S. irregularis* Juzepczuk (Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 14: 369. 1951).

**95. *Scutellaria orthotricha*** C. Y. Wu & H. W. Li, Fl. Reipubl. Popularis Sin. 65(2): 587. 1977.

展毛黄芩 zhan mao huang qin

Subshrubs perennial, 10–15(–20) cm tall. Rhizomes woody, to 7 mm in diam., brown, much branched. Stems numerous, densely spreading pilose-pubescent. Petiole 0.5–1.7 cm, longest basally, densely pilose; leaf blade ovate, (0.7–)1.3–2×(0.4–)0.8–1.5 cm, adaxially sparsely appressed pilose, abaxially sparsely pubescent along veins otherwise subglabrous and glandular, base broadly cuneate, margin irregularly 2–5-crenate, teeth gradually larger and obtuse apically, apex obtuse. Racemes 2.5–3 cm; bracts ovate to broadly obovate, to 1.7×1.2 cm basally, ± densely spreading pilose, short stipitate glandular on veins and margin otherwise subglabrous, margin 2- or 3-dentate on apical half, upper bracts entire, apex short acuminate. Pedicel ca. 3 mm, flat, densely spreading pilose, stipitate glandular. Calyx ca. 2 mm, densely pilose outside, short stipitate glandular, to 4 mm in fruit; scutellum ca. 3 mm, to 3.5 mm in fruit. Corolla

yellowish with purple spots, ca. 3 cm, pubescent outside, stipitate glandular; tube bent at base, ca. 1.5 mm wide at middle, gradually dilated to 6 mm wide at throat; upper lip ca. 6 mm wide; middle lobe of lower lip broadly ovate, ca. 1 cm wide, apex emarginate; lateral lobes ovate, ca. 3 mm wide. Nutlets triquetrous, ovoid, ca. 1.25×1 mm, white tomentose, adaxially umbonate at base. Fl. Jun-Aug, fr. Jul-Sep.

• Slopes; 1200–1300 m. Xinjiang.

Kamelin (in litt.) believes that this species is conspecific with *Scutellaria oligodonta* Juzepczuk.

**96. *Scutellaria tuberifera*** C. Y. Wu & C. Chen, Fl. Yunnan. 1: 566. 1977.

假活血草 jia huo xue cao

Herbs. Rhizomes with long stolons, terminated in a globose to ovoid tuber 5–8 mm in diam. Stems erect to ascending, 10–25(–30) cm tall, densely spreading pilose. Petiole 0.4–1.5 cm, 3–15 cm basally, flat, densely, spreading pilose; leaf blade circular-ovate to lanceolate-ovate, or reniform, 1–1.8(–2.4)×1.2–1.5(–2) cm, 0.5–1×0.8–1.3 cm basally, herbaceous, sparsely appressed pilose, abaxially glaucous, palmately veined, base subtruncate to deeply cordate, margin ± regularly 4–7-crenate, apex obtuse to rounded. Bracteoles ca. 1 mm. Flowers terminal or axillary, erect, later becoming pendent. Pedicel 2–3 mm, spreading pilose, basally 2-bracteolate. Calyx ca. 3 mm, pilose outside, to 6 mm in fruit; scutellum ca. 0.75 mm, to 3 mm in fruit. Corolla purplish or blue-purple, ca. 6 mm, sparsely pubescent outside, glabrous inside, tube erect, slightly saccate in front at base, gradually dilated to ca. 3 mm wide at throat; upper lip erect, oblong, ca. 1.5 mm, apex rounded rarely emarginate; middle lobe of lower lip spreading upward, trapeziform, ca. 4×5 mm, apex emarginate; lateral lobes oblong-ovate, slightly shorter than upper lip, almost entirely adnate to it. Nutlets yellow-brown, ovoid-globose, ca. 2 mm in diam., abaxially tuberculate, umbonate at apex of smooth conical adaxial side, without a wing on equatorial plane. Fl. Mar-Apr, fr. Apr.

• Shady, grassy slopes, bamboo forests, dense forests, stream-side tufts of grass; 100–200 m (to 1600 m in Yunnan). Anhui, Jiangsu, Yunnan, Zhejiang.

**97. *Scutellaria guilielmi*** A. Gray, Amer. Assoc. Advancem. Sci. 21: 25. 1873.

连钱黄芩 lian qian huang qin

*Scutellaria lantienensis* Handel-Mazzetti.

Herbs rhizomatous. Stems erect to prostrate-ascending, 12–35 cm tall, glabrous to sparsely pilose upward, branched. Leaves gradually reduced and narrower upward; petiole 4–14 mm, 1.2–3 cm basally, subglabrous or densely pilose; leaf blade circular-ovate to narrowly ovate, broadly ovate-orbicular to subreniform basally, 0.7–1.7×0.7–2.6 cm, herbaceous, sparsely appressed pilose, base cordate to subtruncate, margin coarsely 4–6-crenate, apex obtuse to rounded. Flowers terminal or axillary, erect, becoming pendent. Pedicel 2–4 mm, finely glandular pilose. Calyx ca. 3 mm, pilose outside, glandular pilose, to 4 mm in fruit; scutellum ca. 0.6 mm, ca. 2 mm in fruit. Corolla purple with white on throat, ca. 5 mm, sparsely pubescent outside, adaxially puberulent on base; tube erect, slightly dilated in front, gradually dilated to ca. 2 mm wide at throat; upper lip erect, circular, apex emarginate; lower lip spreading downward; middle lobe semicircular, ca. 1.2×2.2 mm; lateral lobes oblong-ovate, almost entirely adnate to upper lip.

Nutlets orange-brown, oblate, ca. 2 mm in diam. including wing, abaxially densely tuberculate, with a cylindrical umbo near middle, densely spiny around umbo on adaxial side, equatorial plane circumvented by a wing ca. 0.5 mm wide, margin irregularly comblike.

- Slopes, wet areas in forests, bamboo forests, limestone areas; 200–1700 m. Hunan, Shaanxi, Zhejiang [Japan].

**98. *Scutellaria kingiana*** Prain, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 59: 308. 1890.

藏黄芩 zang huang qin

*Scutellaria tibetica* C. Y. Wu & H. W. Li.

Herbs dwarf perennials. Rhizomes woody, ca. 0.6 cm in diam., much branched. Stems purplish, numerous, white pubescent. Petiole 1.5–2 mm, densely white pubescent; leaf blade ± purplish abaxially, subcircular to ovate-orbicular, 6–9×6–7 mm, herbaceous, corrugate, densely white pubescent, yellowish glandular, base broadly cuneate to rounded, margin crenate, apex obtuse. Bracteoles needlelike. Flowers solitary, axillary, ca. 2.2 cm. Pedicel ca. 1 mm, pubescent, 2-bracteolate at middle. Calyx ca. 4.5 mm, white pubescent outside, slightly saccate at ca. middle of upper lip, dilated, to 6 mm after anthesis. Corolla rose, yellow pubescent outside; tube suberect, base ca. 1.5 mm wide, gradually dilated to 4 mm wide at throat; upper lip to 6 mm wide, apex emarginate; middle lobe of lower lip nearly semicircular, to 9 mm wide, apex emarginate; lateral lobes ovate, ca. 2.5 mm wide, adnate to upper lip. Nutlets unknown. Fl. Jul.

- Gravelly sandy soils of alluvial fans in mountains; 4600 m. Xizang.

