

34. GALEOBDOLON Adanson, Fam. Pl. 2: 190. 1763.

小野芝麻属 xiao ye zhi ma shu

Matsumurella Makino.

Shrubs or annual or biennial herbs. Leaves petiolate; blade margin dentate. Verticillasters 2–8-flowered; bracts shorter than calyx, linear, early deciduous. Calyx campanulate, hairy outside, glabrous except for hairy teeth inside, 5-veined; teeth 5, lanceolate, posterior 3 slightly larger than anterior 2. Corolla purple-red or reddish, 1.5–2× as long as calyx, 2-lipped, hairy especially on upper lip outside; tube slightly exerted, hairy annulate inside; upper lip straight, oblong, rarely obovate, emarginate, rarely as long as tube; lower lip spreading, 3-lobed, middle lobe obcordate to obovate, lateral lobes subcircular to ovate. Stamens 4, anterior 2 longer; anthers ovoid, cells 2, divaricate. Ovary lobes truncate, glabrous or rarely minutely hispid at apex. Style apex subequally 2-cleft. Nutlets triquetrous, oblong, obovoid, to obconical, base attenuate, apex subtruncate, glabrous or short hairy.

Galeobdolon is often included in *Lamium*.

About six species: one in Europe and SW Asia, five in China, among them one also in Japan.

- 1a. Verticillasters 2-flowered; flowers conspicuously pedicellate; apex of ovary lobes sparsely hirtellous; herbs or shrubs.
 - 2a. Shrubs; leaves dark olive green adaxially, midrib densely appressed pilose; flowers on short, leafy axillary shoots 4. *G. yangsoense*
 - 2b. Herbs; leaves yellow-brown adaxially, midrib densely appressed minute hispid-pilose; flowers solitary in axils 5. *G. kwangtungense*
- 1b. Verticillasters 2–8-flowered; flowers subsessile; ovary glabrous; slender herbs with tuberlike roots.
 - 3a. Plants with slender stolons at base; leaves rhombic-ovate, 1.7–4.2×1.1–3 cm, coarsely serrate 3. *G. szechuanense*
 - 3b. Plants without slender stolons; leaves ovate, ovate-oblong to broadly lanceolate or ovate-rhombic, crenate-serrate.
 - 4a. Herbs 10–20 cm tall; taproots tuberous; leaves ovate-rhombic, 1–2×0.8–1.6 cm; lower lip of corolla spotted 2. *G. tuberiferum*
 - 4b. Plants 10–60 cm tall; roots sometimes tuberlike; leaves ovate-oblong to broadly lanceolate, 1.5–4×1.1–2.2 cm; corolla not spotted 1. *G. chinense*

1. Galeobdolon chinensis (Benth) C. Y. Wu, Acta Phytotax. Sin. 10: 157. 1965.

小野芝麻 xiao ye zhi ma

Lamium chinense Benth, Prodr. 12: 512. 1848.

Herbs annual. Roots sometimes tuberlike. Stems 10–60 cm tall, densely tawny tomentose. Petiole 0.5–1.5 cm; leaf blade ovate or ovate-oblong to broadly lanceolate, 1.5–12×1.1–6 cm, herbaceous, base broadly cuneate, apex obtuse to acute. Verticillasters 2–4-flowered; bracts linear, ca. 6 mm, early deciduous. Calyx tubular-campanulate, ca. 1.5×0.7 cm, densely tomentose; teeth lanceolate, 4–6 mm, apex awned-acuminate. Corolla ca. 2.1 cm, white villous; upper lip ca. 1.1 cm, obovate, base attenuate, lower lip ca. 8×9 mm, lateral lobes similar to middle lobe, subcircular. Filaments glabrous; anthers purple, glabrous. Style apex unequally 2-cleft. Nutlets obovoid, ca. 2.1×0.9 mm, apex truncate. Fl. Mar–May, fr. Jul–Aug.

• Sparse forests, hillsides; 100–300 m. Anhui, Fujian, Guangdong, Guangxi, Hunan, Jiangsu, Jiangxi, Taiwan, Zhejiang.

- 1a. Leaves 4–12×3–6 cm; corolla white 1b. var. *robustum*
- 1b. Leaves less than 4×2.2 cm; corolla reddish.
 - 2a. Leaves rhombic, coarsely crenate, sparsely appressed minutely hispid 1c. var. *subglabrum*
 - 2b. Leaves ovate or ovate-oblong to broadly lanceolate, crenate-serrate, adaxially appressed ciliate, abaxially tawny tomentose 1a. var. *chinense*

1a. Galeobdolon chinensis var. *chinense*

小野芝麻 xiao ye zhi ma

Herbs 10–60 cm tall. Leaves ovate or ovate-oblong to broadly lanceolate, less than 4×2.2 cm, adaxially with appressed ciliate hairs, abaxially tawny tomentose, margin crenate-serrate. Corolla reddish.

• Sparse forests; 100–300 m. Anhui, Fujian, Guangdong, Guangxi, Hunan, Jiangsu, Jiangxi, Taiwan, Zhejiang.

1b. Galeobdolon chinensis var. *robustum* C. Y. Wu, Acta Phytotax. Sin. 10: 158. 1965.

粗壮变种 cu zhuang bian zhong

Plants robust, ca. 60 cm tall. Leaves 4–12×3–6 cm. Corolla white.

• Hillsides. Fujian.

1c. Galeobdolon chinensis var. *subglabrum* C. Y. Wu, Acta Phytotax. Sin. 10: 158. 1965.

近无毛变种 jin wu mao bian zhong

Plants ca. 19 cm tall. Leaves rhombic, 3.8–4.2×1.5–2.2 cm, sparsely appressed hispidulous, margin coarsely crenate.

• Hillsides. Jiangxi.

2. Galeobdolon tuberiferum (Makino) C. Y. Wu, Acta Phytotax. Sin. 10: 158. 1965.

块根小野芝麻 kuai gen xiao ye zhi ma

Leonurus tuberiferus Makino, Bot. Mag. (Tokyo) 19: 146. 1905; *Lamium chinense* Benthham var.? *parvifolia* Hemsley; *Lamium kelungense* Hayata; *Lamium tuberiferum* (Makino) Ohwi; *Matsumurella tuberifera* (Makino) Makino.

Herbs perennial. Taproot forming a globose or oblong tuber at apex. Stems 10–20 cm tall, slender, minutely hispid. Petiole 0.5–1.5 cm; stem leaf blades ovate-rhombic, 1–2×0.8–1.6 cm, herbaceous, adaxially appressed white ciliate, abaxially appressed hirsute, base broadly cuneate, margin crenate-serrate, apex acute or obtuse. Verticillasters (2–)4–8-flowered; floral leaves similar to stem leaves, 5–6×3–4 mm; bracts linear, ca. 3 mm. Calyx tubular-campanulate, ca. 8×2.2 mm, bristly; teeth triangular-lanceolate, as long as calyx tube, apex acuminate. Corolla purple-red or reddish, ca. 1.3 cm; tube ca. 0.6 mm wide at base, ca. 4 mm wide at throat; upper lip straight, oblong, ca. 6 mm, hispid outside; lower lip 8×5 mm, purple spotted, middle lobe obcordate, lateral lobes subcircular. Anthers dark purple. Ovary lobes oblong, scaly at apex. Nutlets brown, triquetrous, obovoid, ca. 2×1 mm, truncate, glabrous. Fl. Apr, fr. May.

Wet sites close to villages, foothills; 300 m. Guangxi, Hunan, Jiangxi, Taiwan [Japan].

3. Galeobdolon szechuanense C. Y. Wu, Acta Phytotax. Sin. 10: 159. 1965.

四川小野芝麻 si chuan xiao ye zhi ma

Herbs perennial. Stems 8–10 cm tall, base with slender stolons, bristly. Petiole 1.5–3.2 cm; leaf blade rhombic-ovate, 1.7–4.2×1.1–3 cm, base broadly cuneate, margin coarsely serrate, apex obtuse, veins sparsely appressed pilose. Verticillasters 2–4-flowered; bracts minute. Calyx tubular-campanulate, 7–8×2 mm, sparsely bristly; teeth triangular-lanceolate, awned. Corolla purple-red(?), ca. 1.6 cm, glabrous except for sparsely pilose upper lip outside; tube ca. 1.2 mm wide, to 5 mm wide at throat; upper lip straight, suboblong, ca. 6.5 mm, apex truncate, emarginate; lower lip ca. 6×7 mm, middle lobe circular-obovate, lateral lobes subcircular. Ovary lobes subglobose, glabrous. Nutlets unknown. Fl. Apr-May.

- Bamboo forests along streams; 600 m. Sichuan.

4. Galeobdolon yangsoense Sun, Acta Phytotax. Sin. 10: 160. 1965.

阳蒴小野芝麻 yang shuo xiao ye zhi ma

Shrubs. Stems ± terete, tawny hispidulous. Petiole ca. 6 mm; leaf blade ovate-oblong or oblong-lanceolate, 4.5–5.5×2.8–3.6 cm, papery, adaxially dark olive green, sparsely pilose, midrib densely appressed hairy, abaxially appressed hirtellous, veins tawny villous, base broadly cuneate, margin sparsely serrate, apex obtuse or acute. Verticillasters 2-flowered, 1 or 2 ± terminal on an axillary shoot 2.5–6.5 cm. Pedicel ca. 2 mm. Calyx campanulate, ca. 9×5 mm, densely tawny tomentose; teeth lanceolate, as long as calyx tube. Corolla ca. 1.6 cm, pubescent outside except for appressed silky upper lip; tube ca. 1.2 mm wide; upper lip oblong, ca. 8 mm, apex emarginate; lower lip ca. 10×8 mm, lobes subcircular, middle lobe slightly constricted at base. Ovary

lobes sparsely hirtellous at apex. Nutlets triquetrous, oblong, basally attenuate, apex subtruncate, ca. 3×1.6 mm. Fl. and fr. Jul.

- Thickets; 200 m. Guangxi (Yangshuo Xian).

5. Galeobdolon kwangtungense C. Y. Wu, Acta Phytotax. Sin. 10: 160. 1965.

广东小野芝麻 guang dong xiao ye zhi ma

Herbs annual(?). Stems 10–30 cm tall, densely tawny tomentulose. Petiole 1–2 cm; leaf blade ovate to oblong, 2.5–5.5×1.7–4.2 cm, papery, adaxially yellow-brown, densely appressed hirtellous, abaxially tawny tomentulose, base broadly cuneate to subrounded, margin shallowly serrate, apex obtuse. Verticillasters 2-flowered. Pedicel ca. 2 mm. Calyx campanulate, ca. 10×4.5 mm, puberulent; teeth lanceolate, as long as calyx tube, apex long acuminate. Corolla reddish, ca. 1.8 cm, pubescent, yellowish glandular except for densely villous upper lip outside; tube to 1.2 cm, ca. 1 mm wide at base, to 3.2 mm wide at throat; upper lip straight, oblong, ca. 6 mm, obscurely emarginate, slightly curved; lower lip ca. 6.5×7.5 mm, lateral lobes ovate; middle lobe oblate, base constricted, apex emarginate. Nutlets triquetrous, oblong, ca. 3×1.2 mm, base attenuate, apex truncate, pubescent. Fl. and fr. Jul-Sep.

- Forests; 800–900 m. Guangdong.

