

#### 4. KINOSTEMON Kudô, Trans. Nat. Hist. Soc. Taiwan 19: 1. 1929.

动蕊花属 dong rui hua shu

Herbs perennial. Leaves short petiolate; leaf blade ovate to linear-oblong. Verticillasters 2-flowered, arranged in lax, terminal and axillary, simple or branched thyrses; bracts lanceolate, sometimes early deciduous. Flowers pedicellate. Calyx campanulate, 10-veined, 2-lipped; upper lip 3-toothed, middle tooth largest, conspicuously netted, lateral 2 teeth smaller; lower lip 2-toothed. Corolla 2-lipped, upper lip 2-lobed, lower lip 3-lobed with middle lobe largest. Stamens 4, straight, exerted from upper lip of corolla, anterior 2 slightly longer, ca. 2× as long as corolla; filaments filiform; anther cells divergent, confluent at apex. Ovary shallowly 4-lobed, apically truncate. Nutlets 4, obovoid, netted on back, areole nearly 1/2 as long as nutlet.

Three species: endemic to China.

- 1a. Plants glabrous; lobes of upper corolla lip obliquely triangular-ovate ..... 1. *K. ornatum*
- 1b. Plants villous or pubescent; lobes of upper corolla lip ovate or oblate.
  - 2a. Leaves ovate to ovate-lanceolate, 3–6×1–2 cm, irregularly dentate, lateral veins 3–15-paired; inflorescences of 3–7 verticillasters; corolla to 1.1 cm, glabrous inside ..... 2. *K. alborubrum*
  - 2b. Leaves subcircular to ovate, less than 2×1.3 cm, 2- or 3- (or 5)-crenate, lateral veins 2- or 3-paired; inflorescences of 4 verticillasters; corolla ca. 7.5 mm, bearded annulate inside ..... 3. *K. veronicifolia*

**1. *Kinostemon ornatum*** (Hemsley) Kudô, Trans. Nat. Hist. Soc. Taiwan 19: 2. 1929.

动蕊花 dong rui hua

*Teucrium ornatum* Hemsley, J. Linn. Soc., Bot. 26: 313. 1890; *Orthosiphon delavayi* H. Léveillé.

Stems erect, 50–80 cm tall, glabrous, branched from base. Petiole 3–10 mm; leaf blade ovate-lanceolate to linear-oblong, 7–13×1.3–3.5 cm, glabrous, lateral veins 6–8-paired, base cuneate-decurrent, margin remotely dentate to sometimes entire, apex caudate-acuminate or sometimes falcate-acuminate. Verticillasters widely spaced, secund, in terminal and axillary glabrous thyrses, axillary thyrses slightly shorter than leaves; bracts ca. 5×1 mm, early deciduous. Pedicel ca. 3 mm, glabrous. Calyx ca. 4.7×4.5 mm, tube ca. 2 mm, glabrous outside, pilose annulate at throat; middle tooth of upper lip circular, ca. 3 mm in diam., apex acute, lateral teeth ovate; lower lip slightly longer than upper. Corolla purplish red, ca. 1.1 cm, very sparsely pubescent outside, with yellow glands, glabrous inside; tube to 8 mm, ca. 1.2 mm wide basally, dilated apically; lobes of upper lip obliquely triangular-ovate, ca. 2 mm; middle lobe of lower lip ovate-spatulate, ca. 4×2.8 mm, apex apiculate; lateral lobes oblong, ca. 2.5×1 mm. Nutlets ca. 1 mm in diam. Fl. Jun-Aug, fr. Aug-Nov.

• Forested slopes; 700–2600 m. Anhui, Guizhou, Hubei, Shaanxi, Sichuan, Yunnan.

**2. *Kinostemon alborubrum*** (Hemsley) C. Y. Wu & S. Chow, Acta Phytotax. Sin. 10: 247. 1965.

粉红动蕊花 fen hong dong rui hua

*Teucrium alborubrum* Hemsley, J. Linn. Soc., Bot. 26: 311. 1890.

Plants rhizomatous. Stems ascending, over 1 m tall, much branched, finely striate apically, densely spreading white pilose. Petiole 4–12 mm; leaf blade ovate to ovate-lanceolate, 3–6×1–2 cm, pilose, veins densely villous abaxially, base broadly cuneate to cuneate-decurrent, margin irregularly dentate, apex short acuminate to caudate-acuminate. Verticillasters widely spaced, secund, in terminal and axillary thyrses 3–6 cm; bracts ca. 1/2 as long as pedicel,

pilose. Pedicel 3–4 mm, puberulent. Calyx ca. 4×4 mm, pilose outside, pilose annulate at throat, tube ca. 2 mm; middle tooth of upper lip oblate, ca. 1.7 mm in diam., apex acute; lateral teeth ovate, ca. 1/2 as long as middle tooth; lower lip teeth triangular-subulate, slightly longer than upper lip, ca. 2 mm. Corolla reddish, ca. 1.1 cm, lanate-villous, with yellow glands outside, glabrous inside; tube to 7×1.7 mm, slightly dilated at throat; limb spreading almost at a right angle to tube, lobes of upper lip oblate, ca. 1×2 mm; middle lobe of lower lip oblong, ca. 4×2 mm, concave, apex rounded; lateral lobes ovate, ca. 1.2 mm. Style greatly exerted. Nutlets unknown. Fl. Jul.

• Hilly grasslands. Hubei, Sichuan.

**3. *Kinostemon veronicifolia*** H. W. Li, Bull. Bot. Res. 3(3): 70. 1983.

保康动蕊花 bao kang dong rui hua

Plants ca. 20 cm tall. Stems ascending, much branched, striate, densely spreading yellow-brown pubescent. Petiole 2–3 mm, densely spreading pubescent; leaf blade subcircular to ovate, (0.5–)1.3–2×(0.5–)1–1.3 cm, abaxially densely pubescent especially along midrib and veins, lateral veins 2- or 3-paired, base rounded, margin 2- or 3- (or 5)-crenate, apex acute. Thyrses terminal, to 4 cm, composed of 4 verticillasters; rachis white pubescent; bracts ovate-lanceolate, 1–1.5 mm, apically acute. Pedicel to 4 mm. Calyx ca. 3.8 mm, tubular-campanulate, pubescent outside, pilose annulate at throat; upper lip ca. 1.5 mm, middle tooth oblate, ca. 1.7 mm wide, lateral teeth nearly semicircular, ca. 0.5×1 mm; lower lip ca. 2 mm, with ovate-triangular, apically acute teeth. Corolla purple-red, ca. 7.5 mm, white pubescent outside, bearded annulate inside; tube ca. 6×1.5 mm, throat slightly dilated; limb nearly at a right angle to tube; lobes of upper lip ovate, ca. 2.5 mm; middle lobe of lower lip oblong-ovate, ca. 3×2 mm, concave, apex rounded; lateral lobes ovate, ca. 1 mm. Nutlets unknown. Fl. Sep.

• Waste areas; 400 m. Hubei (Baokang Xian).

