

146. CYNODON Richard in Persoon, Syn. Pl. 1: 85. 1805, nom. cons.

狗牙根属 *gou ya gen shu*

Sun Bixing (孙必兴 Sun Bi-sin); Sylvia M. Phillips

Capriola Adanson, nom. rej.; *Dactilon* Villars, nom. rej.

Perennials, rhizomatous or stoloniferous, sometimes sward forming. Culms slender to robust, leafy, internodes short. Leaf blades broadly linear to filiform, flat; ligule membranous or ciliate. Inflorescence digitate or sometimes 2 or more closely spaced whorls; racemes unilateral, slender; spikelets sessile, imbricate, biseriate; rachis flat or semiterete. Spikelets strongly laterally compressed, floret 1, with or without rachilla extension (very rarely 2nd floret present), narrowly ovate, awnless, disarticulating above glumes; glumes subequal, shorter or as long as floret, narrow, herbaceous, 1-veined or upper glume 3-veined, apex acuminate, both or only lower glume persistent; lemma keeled, boat-shaped, cartilaginous, 3-veined, usually pubescent on keel, apex entire, awnless. Caryopsis ellipsoid, laterally compressed. $x = 9, 10$.

Ten species: tropics of the Old World, especially Africa, one species pantropical extending into warm-temperate regions; two species in China.

- 1a. Rhizomes absent; racemes 5–10 cm; leaf sheath mouth glabrous or pilose; anthers ca. 0.5 mm 1. *C. radiatus*
1b. Rhizomes present; racemes 2–6 cm; leaf sheath mouth bearded; anthers more than 1 mm 2. *C. dactylon*

1. *Cynodon radiatus* Roth ex Roemer & Schultes, Syst. Veg. 2: 411. 1817.

弯穗狗牙根 *wan sui gou ya gen*

Cynodon arcuatus J. Presl in C. Presl; *C. dactylon* var. *intermedius* (Rangachari & Tadulingham) C. E. C. Fischer; *C. intermedius* Rangachari & Tadulingham.

Perennial, stoloniferous, widely spreading, without rhizomes. Culms slender, 20–50(–80) cm tall. Leaf sheaths glabrous or pilose at mouth; leaf blades broadly linear, 2.5–10(–15) cm, 3–6 mm wide, glaucous, glabrous, apex acute; ligule ca. 3 mm, membranous, ciliate on upper edge. Racemes digitate, usually 4–8, 5–10 cm, flexuous, slightly drooping; spikelets overlapping by 1/3–1/2 their length. Spikelets 1.8–2.5 mm; rachilla extension ca. 1 mm, without reduced floret at apex; glumes lanceolate, about half as long as floret, 1-veined, keel scabrous, thickened; lower glume ca. 1 mm; upper glume 1–1.4 mm; lemma as long as spikelet, pilose along keel and lateral veins, hairs sometimes clavate, apex subacute; palea glabrous, keels smooth or rarely scaberulous. Anthers 0.5–0.7 mm. Caryopsis trigonous, laterally compressed. Fl. and fr. Jul–Nov. $2n = 36$.

Sunny open places, roadsides. Guangdong (offshore islands), Hainan, Taiwan [Bhutan, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam; N Australia; Madagascar].

The club-shaped tips to the lemma hairs can be seen only under a microscope. This species is easily confused with *Cynodon dactylon*, from which it differs mainly in the absence of rhizomes. It is genetically isolated from all other species of *Cynodon*.

2. *Cynodon dactylon* (Linnaeus) Persoon, Syn. Pl. 1: 85. 1805.

狗牙根 *gou ya gen*

Perennial, stoloniferous, also with slender scaly rhizomes, sward forming. Culms slender, 10–40 cm tall. Leaf sheaths bearded at mouth, otherwise glabrous or thinly pilose; leaf blades linear, short and narrow, 1–12 cm, 1–4 mm wide, usually glabrous, apex subacute; ligule a line of hairs. Racemes

digitate, (2–)3–6, 2–6 cm, straight or gently curved, rather stiff, spreading; spikelets overlapping by 1/2–2/3 their length. Spikelets 2–2.7 mm; rachilla extension ca. 1 mm, sometimes with minute rudimentary floret at apex; glumes linear-lanceolate, often purplish, usually more than half as long as floret, 1.5–2 mm, 1-veined, keel scabrous, thickened; lemma as long as spikelet, silky villous along keel, hairs straight, otherwise glabrous or lateral veins thinly villous, apex subacute; palea glabrous, keels scaberulous. Anthers more than 1 mm. Caryopsis subterete, scarcely laterally compressed. Fl. and fr. nearly all the year. $2n = 18, 36$.

Open disturbed situations, roadsides, field margins, cultivated as a lawn grass; sea level to 2500 m. Fujian, Gansu, Guangdong, Hainan, Hubei, Jiangsu, Shaanxi, Shanxi, Sichuan, Taiwan, Yunnan, Zhejiang [tropical and warm-temperate regions of the world].

This is the most widely used lawn grass in warm parts of the

world, and it is also an important pasture grass (Bermuda Grass). It is extremely variable and it will readily hybridize with some other *Cynodon* species.

- 1a. Spikelet with 1 bisexual floret 2a. var. *dactylon*
1b. Spikelet with 2 bisexual florets 2b. var. *biflorus*

2a. *Cynodon dactylon* var. *dactylon*

狗牙根(原变种) *gou ya gen* (*yuan bian zhong*)

Panicum dactylon Linnaeus, Sp. Pl. 1: 58. 1753.

Spikelets 2–2.5 mm, with 1 bisexual floret. Fl. and fr. most of the year. $2n = 18, 36$.

Open disturbed situations, roadsides, field margins, and cultivated as a lawn grass; sea level to 2500 m. Fujian, Guangdong, Hainan, Hubei, Jiangsu, Shaanxi, Sichuan, Taiwan, Yunnan, Zhejiang [tropical and warm-temperate regions of the world].

2b. *Cynodon dactylon* var. *biflorus* Merino, Fl. Galicia 3: 310. 1909.

双花狗牙根 *shuang hua gou ya gen*

Fibichia umbellata Koeler var. *biflora* Beck.

Spikelets 2.5–2.7 mm, with 2 bisexual florets; rachilla between florets ca. 1 mm. Fl. and fr. May–Oct.

Fujian, Jiangsu, Taiwan, Zhejiang [described from Europe].

Specimens occur sporadically throughout the range of the species in which the rudimentary second floret at the end of the rachilla extension is better developed. In rare cases it may even enclose anthers or be bisexual and only a little smaller than the lower floret. Such spikelets often occur on plants with mainly normal inflorescences and are of negligible taxonomic significance.

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