

**175. DIGITARIA** Haller, Hist. Stirp. Helv. 2: 244. 1768, nom. cons.,  
not Heister ex Fabricius (1759), nom. rej.

马唐属 ma tang shu

Chen Shouliang (陈守良); Sylvia M. Phillips

*Leptoloma* Chase; *Syntherisma* Walter.

Annual or perennial. Culms erect or decumbent, occasionally stoloniferous. Leaf blades linear or linear-lanceolate; ligule membranous. Inflorescence of digitately arranged racemes, sometimes on a short axis or with secondary branchlets, very rarely paniculate; spikelets usually in groups of 2–3(–4), imbricate to effuse, the latter often on notably long and unequal pedicels. Spikelets puberulous to villous, typically in stripes between the well-defined veins, rarely glabrous; lower glume absent or reduced to a little scale up to 1/4 spikelet length; upper glume variable; lower lemma usually ± equal to spikelet; upper floret pallid to black, apex subacute to acuminate, rarely apiculate.  $x = 9$ .

About 250 species: tropical and warm-temperate regions of the world; 22 species (three endemic) in China.

*Digitaria* has been traditionally divided on the nature of the spikelet hairs, which may be clavate, capitate, verrucose (warty, appearing beaded), or with crooked tips. As good magnification is required to see these features, the grouping of the spikelets on the raceme is a more practical aid to identification. Many species have regularly paired spikelets, which present no difficulty. In those species where the spikelets are grouped in clusters of 3 or more, care must be taken, as often the longest pedicel of a group is partially fused to the rachis so that the spikelets appear alternately paired and single, or sometimes one spikelet may be vestigial, or the spikelets may be paired toward the raceme tips.

Many species are very variable in spikelet pubescence and lemma nervation, even within a single raceme. Additionally, there are a number of complexes of intergrading species, so intermediates may occasionally be encountered. This has led to the publication of many superfluous names.

- 1a. Inflorescence an open panicle with long capillary branches ..... 1. *D. fujianensis*
- 1b. Inflorescence composed of racemes.
  - 2a. Spikelets of a pair heteromorphic, lower spikelet glabrous or almost so, upper spikelet conspicuously hairy.
    - 3a. Annual; midrib of rachis narrow, clearly winged; lower lemma with 7 slender veins ..... 10. *D. ciliaris*
    - 3b. Perennial and stoloniferous or annual; midrib of rachis thick, scarcely winged; lower lemma with 7–11 thick, prominent veins.
      - 4a. Perennial, stoloniferous; spikelets 4–4.5 mm, spaced on rachis ..... 3. *D. heterantha*
      - 4b. Annual; spikelets ca. 3 mm, imbricate on rachis ..... 4. *D. bicornis*
  - 2b. Spikelets all similar.
    - 5a. Tussocky perennial; leaf sheaths breaking up into fibers at base ..... 2. *D. fibrosa*
    - 5b. Annuals or short-lived perennials; leaf sheaths not forming fibrous tussock.
      - 6a. Spikelets paired; pedicels with truncate tips.
        - 7a. Lower glume absent or almost so ..... 5. *D. setigera*
        - 7b. Lower glume small but clearly present.
          - 8a. Raceme rachis with smooth margins; racemes 2–3 ..... 6. *D. radicata*
          - 8b. Raceme rachis with scabrous margins; racemes often more than 3.
            - 9a. Upper glume 1/3–1/2 length of spikelet.
              - 10a. Lateral veins of lower lemma scabrous toward apex; upper glume subacute; upper lemma acuminate, equaling lower lemma ..... 7. *D. sanguinalis*
              - 10b. Lateral veins of lower lemma smooth; upper glume rounded; upper lemma apiculate, exceeding lower lemma ..... 8. *D. cruciata*
            - 9b. Upper glume 1/2–3/4 length of spikelet; lateral veins of lower lemma smooth; upper lemma not exceeding lower lemma.
              - 11a. Racemes erect, forming a narrow fascicle; spikelets 2.2–2.8 mm ..... 9. *D. henryi*
              - 11b. Racemes widely spreading at maturity; spikelets 2.5–3.5 mm ..... 10. *D. ciliaris*
      - 6b. Spikelets in groups of 3 or more, at least in middle part of raceme (sometimes a pedicel fused to the rachis, or a spikelet abortive, or if paired pedicels long and flexuous); pedicels usually with discoid tips.
        - 12a. Spikelets with capitate or clavate hairs (if glabrous, pedicel tips hairy).
          - 13a. Tips of pedicels with a cirlet of stiff, overtopping hairs or spicules up to 1 mm.
            - 14a. Spikelets 1.8–2.5 mm; upper glume 2/3–4/5 spikelet length ..... 11. *D. ternata*
            - 14b. Spikelets 1.2–1.5 mm; upper glume 1/4–1/2 spikelet length ..... 12. *D. stricta*
          - 13b. Tips of pedicels without overtopping hairs or spicules.
            - 15a. Rachis of raceme flat, winged; spikelets 2–2.2 mm ..... 20. *D. ischaemum*
            - 15b. Rachis of raceme slenderly triquetrous, not or scarcely winged; spikelets 1.3–2 mm.

- 16a. Spikelets 1.8–2 mm; leaves conspicuously hispid ..... 13. *D. hengduanensis*  
 16b. Spikelets 1.3–1.7 mm; leaves glabrous to pilose.  
 17a. Racemes 2–5, 3–8 cm; culms 30–90 cm; spikelets pubescent; apex of  
 fertile floret protruding above lower lemma ..... 14. *D. abludens*  
 17b. Racemes 5–8, 10–17 cm; culms 80–110 cm; spikelets coarsely villous;  
 apex of fertile floret not protruding ..... 15. *D. jubata*  
 12b. Spikelets with smooth or verrucose hairs (tips sometimes coiled), or glabrous; pedicel tips  
 glabrous.  
 18a. Upper lemma pale yellowish brown or gray at maturity; plant stoloniferous.  
 19a. Spikelets 1.7–2.3 mm; lower lemma with equidistant veins ..... 16. *D. mollicoma*  
 19b. Spikelets 1.2–1.5 mm; lower lemma with broader intervein spaces flanking  
 midvein ..... 17. *D. longiflora*  
 18b. Upper lemma dark brown to blackish purple at maturity; plant usually tufted.  
 20a. Spikelets glabrous ..... 19. *D. stewartiana*  
 20b. Spikelets pilose.  
 21a. Racemes 2–4, divaricate; spikelets elliptic, 2–2.2 mm ..... 20. *D. ischaemum*  
 21b. Racemes (2–)3–10, ascending; spikelets elliptic-oblong, 1.2–1.9 mm.  
 22a. Upper glume 1/4–1/2 spikelet length ..... 22. *D. fauriei*  
 22b. Upper glume subequaling spikelet.  
 23a. Rachis 0.5–0.8 mm broad; spikelets 1.4–1.9 mm ..... 21. *D. violascens*  
 23b. Rachis 0.3–0.5 mm broad; spikelets 1.2–1.5 mm ..... 18. *D. leptalea*

**1. *Digitaria fujianensis*** (L. Liu) S. M. Phillips & S. L. Chen, *Novon* 13: 467. 2003.

福建薄稃草 fu jian bao fu cao

*Leptoloma fujianensis* L. Liu, *Bot. Res. Acad. Sin.* 1: 41. 1983.

Annual. Culms tufted, erect, 30–50 cm tall, 4–5-noded. Leaf sheaths papillose-pilose; leaf blades linear or linear-lanceolate, 6–20 × 0.3–0.6 cm, thinly pilose, margins thickened, smooth, apex acuminate; ligule brown, 2–3 mm. Inflorescence paniculate, open, 12–18 cm; branches capillary, 5–10 cm, spreading; spikelets toward the panicle periphery; pedicels long, capillary, scaberulous. Spikelets lanceolate-elliptic, 3.3–4 mm, acute; lower glume ca. 0.5 mm, veinless, obtuse or emarginate; upper glume 3/4–4/5 as long as spikelet, 3–5-veined, appressed silky pubescent between lateral veins and along margins; lower lemma as long as spikelet, 7-veined, margins and intervein spaces appressed silky pubescent; upper lemma yellowish, apiculate. Anthers purplish, ca. 2 mm. Fl. and fr. Jul.

- Between rocks. Fujian.

This is a very unusual species on account of its diffuse, paniculate inflorescence, but the spikelets are typical of *Digitaria*. It is similar to *D. cognata* (Schultes) Pilger, from the E United States, but that species has smaller (2.5–3 mm) spikelets and shorter leaf blades. *Digitaria tomentosa* (Koenig) Henrard, from Thailand and S India, also has an open, paniculate inflorescence, but differs in its broader leaf blades, up to 8 mm wide, and especially by the smaller (2.2–2.5 mm) spikelets with tiny glumes.

**2. *Digitaria fibrosa*** (Hackel) Stapf, *Bull. Misc. Inform. Kew* 1912: 428. 1912.

纤维马唐 xian wei ma tang

*Panicum fibrosum* Hackel, *Oesterr. Bot. Z.* 51: 330. 1901; *Digitaria fibrosa* var. *yunnanensis* (Henrard) L. Liu; *D. yunnanensis* Henrard.

Perennial forming a dense tussock. Culms surrounded at base by fibrous remains of old leaf sheaths, erect, 30–50 cm tall. Leaf sheaths pilose to hirsute; leaf blades linear, flat, up to 25 × 0.25–0.4 cm, subglabrous, pilose or hirsute, apex acuminate; ligule ca. 0.5 mm. Inflorescence subdigitate, axis usually glabrous, hairy in hirsute specimens; racemes 2–4, suberect, 4–11 cm; spikelets paired or ternate, loosely arranged; rachis slenderly triquetrous, not winged; pedicels tips slightly swollen. Spikelets oblong-lanceolate, 2.8–3.3 mm, pilose with white or brownish, minutely capitate hairs; lower glume very small, subrounded; upper glume ca. 4/5 as long as spikelet but narrow, 3-veined, pilose; lower lemma as long as spikelet, 7-veined, hairiness variable, usually glabrous and purple-tinged on either side of midvein, 2nd intervein space and margins usually pilose, rarely pilose throughout; upper lemma dark brown to purplish black. Fl. and fr. May–Aug.

Mountain grasslands. Fujian, Guangdong, Guangxi, Sichuan, Yunnan [Laos, Myanmar, Thailand].

*Digitaria fibrosa* is sometimes included in *D. setifolia* Stapf. Both have an identical habit, inflorescence, and spikelet structure, but *D. setifolia* has narrower, inrolled, filiform leaves and is confined to South Africa. *Digitaria fibrosa* is maintained here on account of this difference and the disjunct distribution.

This is the only species in China with a tussocky, fibrous base. Hairiness of the leaves and spikelets is variable, but the loose, narrowly ascending racemes of rather large spikelets with dark fertile florets are easily recognizable.

**3. *Digitaria heterantha*** (J. D. Hooker) Merrill, *Enum. Philipp.* Fl. Pl. 1: 54. 1923.

二型马唐 er xing ma tang

*Paspalum heteranthum* J. D. Hooker, *Fl. Brit. India* 7: 16. 1896 [“1897”], based on *Panicum heteranthum* Nees & Meyen (1841), not Link (1827); *Digitaria baliensis* Ohwi; *D. bantamensis* Ohwi; *D. dispar* Henrard, nom. illeg. superfl.; *D. heterantha* var. *hirtella* L. C. Chia; *D. shimadana* Ohwi.

Perennial, stoloniferous. Culms branching and rooting at lower nodes, 50–100 cm tall. Leaf sheaths glabrous to papillose-pilose; leaf blades broadly linear, 5–15 × 0.3–0.6 cm, glabrous to papillose-pilose on both surfaces; ligule 1–2 mm. Inflorescence digitate; racemes 2–4, stiffly ascending to divaricate, 5–15(–20) cm, the longer sparsely spiculate at base; spikelets paired, not imbricate, appressed and appearing slightly sunken; rachis triquetrous, thick, scarcely winged. Spikelets lanceolate, 3.5–4.5(–6) mm, those of a pair different, lower spikelet glabrous, upper spikelet villous; lower glume very small, veinless; upper glume lanceolate, 1/2 as long as to equaling spikelet, 3–5-veined; lower lemma as long as spikelet, closely 7–11-veined, veins equidistant, thick, prominent, interspaces slitlike; upper spikelet with rows of silky hairs, usually also setose, the hairs spreading halo-like at maturity; upper lemma pallid, acuminate. Fl. and fr. Jun–Oct.  $2n = 36, 72$ .

Coastal sands. Fujian, Guangdong, Hainan, Taiwan [Indonesia, Malaysia, Palau Islands, Philippines, Thailand, Vietnam].

**4. *Digitaria bicornis*** (Lamarck) Roemer & Schultes, Syst. Veg. 2: 470. 1817.

异马唐 yi ma tang

*Paspalum bicorne* Lamarck, Tabl. Encycl. 1: 176. 1791; *Digitaria biformis* Willdenow; *Panicum bicorne* (Lamarck) Kunth; *P. biforme* (Willdenow) Kunth.

Annual. culms decumbent, rooting at lower nodes, 30–60 cm tall. Leaf sheaths glabrous or lower sheaths papillose-pilose; leaf blades linear, 2.5–15 × 0.2–0.9 mm, usually scabrid on both surfaces, rarely sparsely pilose; ligule 1–3.5 mm. Inflorescence digitate or subdigitate; racemes 2–5, 4–14 cm; spikelets paired, imbricate; rachis triquetrous, ca. 1 mm wide, winged. Spikelets lanceolate, ca. 3 mm, those of a pair usually different; lower spikelet glabrous, upper spikelet pubescent; lower glume very small, almost absent or up to 0.4 mm, triangular or bifid, veinless; upper glume lanceolate, ca. 2/3 length of spikelet, 3-veined, pilose; lower lemma as long as spikelet, 7-veined, lower spikelet with equidistant veins, upper spikelet with wider glabrous interspaces on either side of midvein, lateral veins crowded near margins, rows of silky hairs between lateral veins, usually also setose, the hairs spreading halo-like at maturity; upper lemma yellowish, slightly shorter than spikelet. Fl. and fr. May–Sep.  $2n = 54, 72$ .

Waste ground, often on sand, including seashore sand; below 2000 m. Fujian, Hainan, Yunnan [India, Indonesia, Malaysia, Myanmar, New Guinea, Sri Lanka, Thailand; Africa, Australia; introduced in America].

**5. *Digitaria setigera*** Roth ex Roemer & Schultes, Syst. Veg. 2: 474. 1817.

海南马唐 hai nan ma tang

*Digitaria hainanensis* Hitchcock ex Keng; *Digitaria microbachne* (J. Presl) Henrard; *D. microstachya* Henrard; *D. pruriens* (Fischer ex Trinius) Buse; *D. sanguinalis* (Linnaeus) Scopoli var. *pruriens* (Fischer ex Trinius) Prain; *Panicum microbachne* J. Presl; *P. pruriens* Fischer ex Trinius; *P. sanguinale* Linnaeus var. *microbachne* (J. Presl) Hackel; *Syntherisma microbachne* (J. Presl) Hitchcock.

Annual. Culms tufted, decumbent, branching and rooting at lower nodes, 30–100 cm tall. Leaf sheaths glabrous or papillose-pilose; leaf blades linear-lanceolate, 5–20 × 0.3–1 cm, glabrous on both surfaces, papillose-pilose at base, base subrounded, apex acuminate; ligule 1–2 mm. Inflorescence digitate or subdigitate, axis 1–4 cm; racemes 5–12, stiff, 5–15 cm; spikelets paired, imbricate by about 2/3 their length; rachis triquetrous, narrowly winged, ca. 0.6 mm broad, margins scabrous. Spikelets narrowly lanceolate-oblong, 2–2.5(–3) mm, acute; lower glume absent or a minute rim; upper glume up to 1/3 as long as spikelet, 1–3-veined, margins ciliate, apex villous with overtopping hairs; lower lemma as long as spikelet, 5–7-veined, veins evenly spaced or with a wider interspace flanking the midvein, lateral intervein spaces and margins appressed pubescent to villous, rarely ciliate or setose; upper lemma yellowish to gray, subequaling lower lemma, acuminate. Fl. and fr. Jun–Nov.  $2n = 27, 36, 54, 72$ .

Moist slopes, stream banks, roadsides and weedy places. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Taiwan, Yunnan [Bangladesh, Bhutan, India, Indonesia, Japan, Malaysia, Myanmar, Nepal, Thailand, Vietnam; E Africa (Tanzania), Australia, Indian Ocean Islands (Seychelles), Madagascar, Pacific Islands].

This coarse, weedy species is widespread in warm parts of Asia. Spikelet pubescence is very variable, as in most members of the complex around *Digitaria ciliaris*, but the species can be readily distinguished by the lack of a lower glume and the presence of only a very short upper glume.

Specimens have sometimes been misidentified as *Digitaria corymbosa* Merrill. True *D. corymbosa* is a synonym of *D. compacta* (Roemer & Schultes) Veldkamp from India.

**6. *Digitaria radicata*** (J. Presl) Miquel, Fl. Ned. Ind. 3: 437. 1857.

红尾翎 hong wei ling

*Panicum radicosum* J. Presl, Reliq. Haenk. 1: 297. 1830; *Digitaria chinensis* Hornemann var. *hirsuta* (Honda) Ohwi; *D. formosana* Rendle; *D. formosana* var. *hirsuta* (Honda) Henrard; *D. radicata* var. *hirsuta* (Honda) C. C. Hsu; *D. tenuispica* Rendle; *D. timorensis* (Kunth) Balansa; *Panicum formosanum* (Rendle) Makino & Nemoto; *P. timorense* Kunth; *Syntherisma formosana* (Rendle) Honda; *S. formosana* var. *hirsuta* Honda.

Annual. Culms slender, trailing, branching, 30–50 cm tall, glabrous. Leaf sheaths usually glabrous; leaf blades linear-lanceolate, 2–6 × 0.3–0.7 cm, abaxial surface scabrous, adaxial surface glabrous, pubescent or papillose-pilose at base; ligule 0.75–2 mm. Inflorescence digitate; racemes 2–3(–4), slender, 4–10 cm; spikelets paired, loosely imbricate by about half their length; rachis triquetrous, narrowly winged, ca. 0.6 mm broad, margins smooth or almost so. Spikelets narrowly lanceolate, 2.8–3 mm; lower glume triangular, 0.2–0.3 mm; upper glume narrow, long triangular, 1/3–2/3 as long as spikelet, 1–3-veined, villous throughout; lower lemma as long as spikelet, 5–7-veined, a broad intervein space on either side of midvein, lateral veins very close together near margin, appressed silky pubescent, very rarely with a ciliate fringe, never setose; upper lemma yellowish at maturity, narrowly lanceolate. Anthers 0.5–1 mm. Fl. and fr. summer–autumn.  $2n = 18$ .

Moist grasslands, roadsides, weedy places. Anhui, Fujian, Guangdong, Hainan, Taiwan, Yunnan, Zhejiang [India, Indonesia, Japan, Malaysia, Myanmar, Nepal, Philippines, Thailand; Australia, Indian Ocean Islands, Madagascar, Pacific Islands; introduced in Pakistan, Tanzania, and a few other places].

This species is related to *Digitaria ciliaris*, but differs in its slender, trailing habit, fewer digitate racemes with smooth-edged rachis, and narrow spikelets with contiguous lateral veins in the lower lemma, which thereby appears 3-veined.

This species is used for forage.

**7. *Digitaria sanguinalis*** (Linnaeus) Scopoli, Fl. Carniol., ed. 2, 1: 52. 1771.

马唐 ma tang

*Panicum sanguinale* Linnaeus, Sp. Pl. 1: 57. 1753; *Paspalum sanguinale* (Linnaeus) Lamarck.

Annual. Culms erect or decumbent at base, 10–80 cm tall, glabrous or nodes bearded. Leaf sheaths glabrous or sparsely papillose-pilose; leaf blades linear-lanceolate, 5–20 × 0.4–1.2 cm, glabrous or pilose, margins thickened, scabrous; ligule 1–3 mm. Inflorescence digitate or subdigitate, axis 1–2 cm; racemes 4–12, stiff, 5–18 cm; spikelets paired, overlapping by about 2/3 their length; rachis winged, midrib triquetrous, margins scabrous. Spikelets elliptic-lanceolate, 3–3.5 mm, acute; lower glume small, ca. 0.2 mm, triangular; upper glume lanceolate, 1/3–1/2 spikelet length, 3-veined, pubescent, subacute; lower lemma as long as spikelet, 7-veined, veins evenly spaced or a broader interspace flanking the midvein, midvein smooth, lateral veins setiform-scabrous especially toward the apex, appressed-pubescent on lateral intervein spaces and margins, rarely also setose; upper lemma greenish gray or light brown, lanceolate, as long as spikelet, apex acuminate. Anthers ca. 1 mm. Fl. and fr. Jun–Sep.  $2n = 28, 36$ .

Fields, roadsides, weedy places. Anhui, Gansu, Guizhou, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Ningxia, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xinjiang, Xizang [warm-temperate and upland subtropical regions throughout the world].

The scabrous veins of the lower lemma, although a small character requiring a good lens, are the best means of distinguishing this species from *Digitaria ciliaris*.

This species is a good forage grass.

**8. *Digitaria cruciata*** (Nees ex Steudel) A. Camus in Lecomte, Fl. Indo-Chine 7: 399. 1922.

十字马唐 shi zi ma tang

*Panicum cruciatum* Nees ex Steudel, Syn. Pl. Glumac. 1: 39. 1853; *Paspalum sanguinale* (Linnaeus) Lamarck var. *cruciatum* (Nees ex Steudel) J. D. Hooker.

Annual. Culms decumbent at base, branching and rooting at lower nodes, 30–100 cm tall, nodes thinly hispid. Leaf sheaths glabrous or hispid; leaf blades linear-lanceolate, 5–20 × 0.3–1 cm, papillose-hispid on both surfaces or adaxial surface glabrous, margins thickened, undulate, scabrous; ligule 1–2.5 mm. Inflorescence subdigitate, axis 1–5 cm; racemes 5–8, 3–15 cm; spikelets paired, imbricate; rachis winged, ca. 1 mm broad, midrib triquetrous, margins scabrous. Spikelets plumply ellip-

tic-oblong, 2.5–3 mm; lower glume minute, veinless; upper glume broadly ovate, 1/3 as long as spikelet, 3-veined, subglabrous, margins membranous, apex broadly obtuse; lower lemma slightly shorter than upper lemma, 7-veined with intervein spaces nearly equidistant, glabrous or margins pilose; upper lemma pale purplish gray at maturity, apex abruptly apiculate, exerted from spikelet. Fl. and fr. Jun–Oct.  $2n = 18, 36, 72$ .

Upland grasslands; 1000–2700 m. Guizhou, Hubei, Sichuan, Xizang, Yunnan [Bhutan, N India, Myanmar, Nepal].

This species is a common weed in the Himalayan region, generally occurring at higher altitudes than other members of the *Digitaria ciliaris* complex. It is usually clearly distinguished by its relatively broad spikelets with a short, rounded upper glume and apiculate apex to the fertile floret.

*Digitaria cruciata* var. *esculenta* Bor is a minor cereal cultivated in the Khasi hills of NE India. It has longer racemes than the wild form, and a turgid, persistent grain. The name has been misapplied to wild-growing plants in Xizang (Lhasa).

**9. *Digitaria henryi*** Rendle, J. Linn. Soc., Bot. 36: 323. 1904.

亨利马唐 heng li ma tang

*Digitaria sasakii* (Honda) Tuyama; *Panicum henryi* (Rendle) Makino & Nemoto; *Syntherisma henryi* (Rendle) Newbold; *S. sasakii* Honda.

Perennial. Culms tufted, slender, prostrate, often rooting at lower nodes, 20–50 cm tall. Leaf sheaths glabrous; leaf blades narrowly lanceolate, 3–8 × 0.2–0.5 cm, glabrous or sparingly hispid near base, apex acute; ligule 1–2 mm. Inflorescence subdigitate, axis short; racemes 3–9, erect and clustered, never divergent, 4–8 cm; spikelets paired; rachis flat, winged ca. 0.5 mm broad, margins scaberulous. Spikelets lanceolate, 2.2–2.8 mm, acuminate; lower glume ca. 0.2 mm; upper glume lanceolate, 1/2 as long as spikelet, 3-veined, pilose; lower lemma slightly longer than upper lemma, 7-veined with broader intervein spaces flanking the midvein, pilose along lateral intervein spaces and margins; upper lemma yellowish green to gray, apex acute. Fl. and fr. summer–autumn.  $2n = 36$ .

Sandy seashores, grasslands near the sea. Fujian, Guangdong, Guangxi, Hainan, Shanghai, Taiwan [S Japan, Vietnam; naturalized in Hawaii].

The spikelets of *Digitaria henryi* resemble those of *D. ciliaris*, to which it is closely related, but *D. henryi* is a rather smaller, more slender plant of different habit, most obviously distinguishable by its cluster of erect racemes.

**10. *Digitaria ciliaris*** (Retzius) Koeler, Descr. Gram. 27. 1802.

纤毛马唐 xian mao ma tang

Annual. Culms decumbent at base, branching and rooting at lower nodes, 30–100 cm tall. Leaf sheaths ± pilose; leaf blades linear to linear-lanceolate, 5–20 × 0.3–1 cm, adaxial surface usually pilose, margins thickened and scabrous; ligule 1–2 mm. Inflorescence digitate or subdigitate, axis short; racemes 3–10, 5–17 cm; spikelets paired, imbricate by about 2/3 their length; rachis winged, ca. 1 mm broad, midrib triquetrous, margins scabrous. Spikelets lanceolate, 2.5–3.5 mm, acute; low-

er glume very small, triangular; upper glume lanceolate, 2/3–4/5 as long as spikelet, 3-veined, pilose; lower lemma as long as spikelet, 7-veined, veins evenly spaced or a broader glabrous interspace flanking the midvein, lateral interveins appressed pubescent to ciliate or villous, sometimes with a halo-like fringe, sometimes setose; upper lemma yellowish green, gray or pale brown, elliptic, as long as lower lemma, apex acuminate. Fl. and fr. May–Oct.  $2n = 36, 54, 72$ .

Roadsides, weedy places. Anhui, Fujian, Gansu, Guangdong, Guanxi, Guizhou, Hainan, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jiangxi, Jilin, Liaoning, Nei Mongol, Ningxia, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xinjiang, Xizang, Yunnan, Zhejiang [throughout the tropics and subtropics, but rare in Africa].

*Digitaria ciliaris* is a pantropical, weedy annual very variable in spikelet pubescence and nervation. It lies at the center of a complex of similar and somewhat intergrading, weedy species including *D. bicornis*, *D. cruciata*, *D. henryi*, *D. radicata*, *D. sanguinalis*, and *D. setigera*. Occasionally intermediate specimens will be encountered that are difficult to place.

Most species in this complex include forms with or without stiff, glassy bristles near the margins of the lower lemma. These lie flat along the lemma when young, coloring yellow and spreading as a conspicuous pectinate fringe at maturity. The pectinate form of *Digitaria ciliaris* is sometimes distinguished at varietal rank.

- 1a. Lower lemma pubescent to villous, but not setose ..... 10a. var. *ciliaris*
- 1b. Lower lemma pubescent to villous and also setose, bristles spreading at maturity ..... 10b. var. *chrysolephara*

**10a. *Digitaria ciliaris* var. *ciliaris***

纤毛马唐(原变种) xian mao ma tang (yuan bian zhong)

*Panicum ciliare* Retzius, Observ. Bot. 4: 16. 1786; *Digitaria adscendens* (Kunth) Henrard; *D. chinensis* Hornemann; *D. sanguinalis* (Linnaeus) Scopoli var. *ciliaris* (Retzius) Parlatore; *D. sericea* (Honda) Honda ex Ohwi; *Panicum adscendens* Kunth; *Syntherisma ciliaris* (Retzius) Schrader; *S. sericea* Honda.

Lower lemma pubescent to villous, but lacking glassy bristles.  $2n = 36, 54$ .

Roadsides, weedy places. Beijing, Fujian, Guangdong, Guizhou, Hainan, Hubei, Jiangxi, Nei Mongol, Ningxia, Shandong, Shanghai, Shanxi, Taiwan, Xinjiang, Xizang, Yunnan, Zhejiang [throughout the tropics and subtropics].

**10b. *Digitaria ciliaris* var. *chrysolephara*** (Figari & De Notaris) R. R. Stewart, Kew Bull. 29: 444. 1974.

毛马唐 mao ma tang

*Digitaria chrysolephara* Figari & De Notaris, Mem. Reale Accad. Sci. Torino, ser. 2, 14: 364. 1852; *D. adscendens* (Kunth) Henrard subsp. *chrysolephara* (Figari & De Notaris) Henrard; *D. ciliaris* subsp. *chrysolephara* (Figari & De Notaris) S. T. Blake.

Lower lemma pilose and also setose with hard glassy bristles, these spreading and yellowing at maturity; sometimes bris-

ties only present on upper spikelet of a pair.  $2n = 72$ .

Roadsides, fields, weedy places. Anhui, Fujian, Gansu, Guangdong, Hainan, Hebei, Heilongjiang, Henan, Jiangsu, Jilin, Liaoning, Shaanxi, Shandong, Shanxi, Sichuan [tropical and warm-temperate regions of the world].

This variety is sometimes included in *Digitaria bicornis*, and there is some similarity, especially when the spikelets are heteromorphic. However, *D. bicornis* is a distinct species with only 2 or 3 racemes, a thick midrib, appressed spikelets, which appear slightly sunken, and thick, prominent veins on the lower lemma, with the intervein spaces forming slitlike furrows.

**11. *Digitaria ternata*** (Hochstetter ex A. Richard) Stapf, Fl. Cap. 7: 376. 1898.

三数马唐 san shu ma tang

*Cynodon ternatus* Hochstetter ex A. Richard, Tent. Fl. Abyss. 2: 405. 1851; *Panicum ternatum* (Hochstetter ex A. Richard) Hochstetter ex Steudel; *Paspalum ternatum* (Hochstetter ex A. Richard) J. D. Hooker; *Syntherisma ternata* (Hochstetter ex A. Richard) Newbold.

Annual. Culms loosely tufted, ascending, up to 100 cm tall, glabrous or pilose with long fine hairs below inflorescence. Leaf sheaths puberulous or glabrous; leaf blades linear, 10–30 × 0.6–1 cm, adaxial surface papillose-pilose, base subrounded, apex acuminate; ligule 1–2 mm. Inflorescence subdigitate, axis villous; racemes 3–8, 10–20 cm; spikelets ternate; rachis broadly winged, ca. 1 mm broad, midrib low, margins scabrous; pedicel tips hispid with 0.2–0.8 mm setae. Spikelets oblong-lanceolate or elliptic-lanceolate, 1.8–2.5 mm, pale grayish green, hairs clavate; lower glume absent; upper glume 2/3–3/4 as long as spikelet, narrower than spikelet, intervein spaces and margins appressed-pilose to hirsute; lower lemma as long as spikelet, 5-veined with a central group of 3 and 2 marginal veins, intervein spaces and margins hairy; upper lemma blackish brown at maturity, as long as spikelet. Anthers 0.4–0.8 mm. Fl. and fr. Jun–Sep.  $2n = 36$ .

Grassy, weedy places. Guangxi, Guizhou, Hong Kong, Sichuan, Yunnan [Bhutan, India, Indonesia, Malaysia, Nepal, Philippines, Thailand; Africa; introduced in America and Australia].

This species is a good forage grass.

**12. *Digitaria stricta*** Roth ex Roemer & Schultes, Syst. Veg. 2: 474. 1817.

竖毛马唐 shu mao ma tang

Annual. Culms tufted, slender, erect, 20–40 cm tall. Leaf sheaths loose, keeled, glabrous or papillose-pilose, especially at mouth; leaf blades linear, soft, 5–20 × 0.3–0.5 cm, adaxial surface tuberculate-hispid in lower 1/3, apex finely acuminate; ligule 1–1.5 mm. Inflorescence subdigitate, axis 1–3 cm; racemes 2–8 or more, 5–12 cm; spikelets ternate; rachis triquetrous, narrowly winged, margins scabrous; pedicels scabrous, tips slightly dilated with overtopping spicules up to 1 mm. Spikelets elliptic, 1.2–1.4 mm, hairs clavate, rarely glabrous; lower glume absent; upper glume variable, 1/4–1/2 as long as spikelet, rarely vestigial or absent, veinless or 1–3-veined;

lower lemma slightly shorter than spikelet, 3–5-veined, inter-vein spaces and margins sparsely pubescent to villous; upper lemma chestnut brown to purplish black with a paler, apiculate, slightly protruding apex. Anthers ca. 0.3 mm. Fl. and fr. autumn.

Grasslands; below 1800 m. Fujian, Sichuan, Xizang, Yunnan [Bhutan, India, Myanmar, Nepal, Pakistan, Sri Lanka].

This species is allied to *Digitaria ternata*, which has bigger spikelets with a longer upper glume.

*Digitaria stricta* is a fairly uniform species, recognizable by its slender, tufted habit and small spikelets with exposed, dark upper floret ringed by setae from the pedicel apex. However, the spikelet pubescence is variable, ranging from subglabrous to conspicuously villous forms, and the small upper glume may sometimes be only vestigial or even occasionally completely absent. Two extreme variants from the typical plant have been given varietal status, as follows.

- 1a. Spikelets glabrous or almost so ..... 12b. var. *glabrescens*  
1b. Spikelets sparsely to densely hairy  
with clavate hairs.  
2a. Upper glume distinct ..... 12a. var. *stricta*  
2b. Upper glume absent ..... 12c. var. *denudata*

#### 12a. *Digitaria stricta* var. *stricta*

竖毛马唐(原变种) shu mao ma tang (yuan bian zhong)

*Agrostis pilosa* Retzius; *Digitaria puberula* Link; *D. royleana* (Nees ex J. D. Hooker) Prain; *Paspalum royleanum* Nees ex J. D. Hooker; *Setaria stricta* (Roth ex Roemer & Schultes) Kunth.

Spikelets obviously hairy with clavate hairs, pubescence varying from short and appressed to longer, dense and spreading; upper glume 1/4–1/2 as long as spikelet.

Grasslands; ca. 1800 m. Yunnan [Bhutan, India, Myanmar, Nepal, Pakistan, Sri Lanka].

12b. *Digitaria stricta* var. *glabrescens* Bor, Webbia 11: 336. 1955.

秃穗马唐 tu sui ma tang

*Digitaria glabrescens* (Bor) L. Liu.

Spikelets glabrous or nearly so; otherwise like var. *stricta*.

Hill slopes, fields; ca. 200 m. Fujian [N India].

12c. *Digitaria stricta* var. *denudata* (Link) Henrard, Monogr. *Digitaria*, 175. 1950.

露籽马唐 lu zi ma tang

*Digitaria denudata* Link, Hort. Berol. 1: 222. 1827; *Panicum denudatum* (Link) Kunth.

Upper glume absent; otherwise like var. *stricta*.

Streams, grasslands; 1000–1800 m. Sichuan, Xizang, Yunnan [India, Nepal].

13. *Digitaria hengduanensis* L. Liu, Bot. Res. Acad. Sin. 4: 37. 1989.

横断山马唐 heng duan shan ma tang

Annual. Culms loosely tufted, slender, 30–60 cm tall. Leaf sheaths papillose-hispid; leaf blades linear-lanceolate, 3–8 × 0.2–0.6 cm, papillose-hispid on both surfaces, apex acute; ligule 0.5–2 mm. Inflorescence axis 2–5 cm; racemes 2–7, loosely ascending, 3–10 cm; spikelets mostly in lax pairs, distant, lower sometimes on short branchlets; rachis slender, triquetrous, narrowly winged, angles scabrous; pedicels of a pair very unequal, one flexuous, up to 8 mm, the other about as long as spikelet, tips discoid. Spikelets elliptic, 1.8–2 mm, hairs clavate; lower glume minute; upper glume as long as spikelet, 3-veined, inter-vein spaces and margins densely hairy; lower lemma similar to upper glume, 5–7-veined; upper lemma yellowish brown, finally chestnut brown, ca. 1.6 mm, apex apiculate. Fl. and fr. Aug–Oct.

• Forest margins, riverside sands, mountain grasslands; 1200–3000 m. Sichuan, Yunnan.

14. *Digitaria abludens* (Roemer & Schultes) Veldkamp, Blumea 21: 53. 1973.

粒状马唐 li zhuang ma tang

*Panicum abludens* Roemer & Schultes, Syst. Veg. 2: 457. 1817; *Digitaria granularis* (Trinius ex Sprengel) Henrard; *D. pedicellaris* (Trinius ex J. D. Hooker) Prain, nom. illeg. superfl.; *Paspalum granulare* Trinius ex Sprengel; *P. pedicellare* Trinius ex J. D. Hooker.

Annual. Culms erect or ascending, 30–90 cm tall. Leaf sheaths usually glabrous; leaf blades linear or linear-lanceolate, 2–15 × 0.2–0.4 cm, scabrous or papillose-pilose; ligule 1–3 mm. Inflorescence axis 1–4 cm; racemes 2–5, loosely spiculate, divaricate, 3–8 cm; spikelets paired or ternate, or the clusters grading into short branchlets; rachis slenderly triquetrous, not winged, ca. 0.5 mm broad, margins scabrous; pedicels very unequal, smoothly terete, spreading out from rachis, tips disklike. Spikelets elliptic, 1.3–1.7 mm, hairs clavate; lower glume absent; upper glume narrower than spikelet and 1/2–4/5 as long, 3–5-veined, intervein spaces and margins pubescent; lower lemma slightly shorter than spikelet, 5–7-veined, interveins and margins pubescent, tip subrounded; upper lemma slightly protruding, yellowish brown becoming chestnut at maturity with a pale apiculate apex. Anthers 0.4–0.65 mm. Fl. and fr. Jun–Oct.  $2n = 36$ .

Hill slopes, forest margins; below 1000 m. Hainan, S Henan, Yunnan [Bhutan, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand].

15. *Digitaria jubata* (Grisebach) Henrard, Blumea 1: 100. 1934.

棒毛马唐 bang mao ma tang

*Paspalum jubatum* Grisebach, Nachr. Königl. Ges. Wiss. Georg-Augusts-Univ. 3: 84. 1868.

Annual. Culms solitary, erect, 80–110 cm tall. Leaf sheaths shortly pilose to glabrescent; leaf blades linear, 10–20 × 0.3–0.5 cm, scabrous, base subrounded, apex acuminate; ligule 1–2 mm. Inflorescence axis 9–13 cm; racemes 5–8, verticillate at base, slender, ascending, slightly flexuous, often compound; spikelets several in clusters or on short ascending racemelets; rachis very slender, triquetrous, not winged, margins scabrous;

pedicels up to 1 cm, scabrous, tips slightly expanded with longer spicules below. Spikelets elliptic, 1.5–1.7 mm, often purple-tinged, hairs capitate; lower glume absent; upper glume slightly shorter than spikelet, 3-veined, villous, acute; lower lemma as long as spikelet or slightly shorter, 3–5-veined, villous; upper lemma yellowish brown or purplish brown, as long as spikelet, narrowly acute, apex usually extended. Anthers ca. 0.5 mm. Fl. and fr. Jun–Sep.

Mountain grasslands. Guizhou, Yunnan [NE India].

*Digitaria jubata* appears to be a species of rather restricted distribution. It is similar to *D. abludens*, but has taller, solitary (vs. tufted) culms, and longer racemes with the branchlets and pedicels lying closer to the rachis (vs. widely spreading). The spikelet pubescence is denser, with more obviously pin-headed hairs.

**16. *Digitaria mollicoma* (Kunth) Henrard, Blumea 1: 97. 1934.**

绒马唐 rong ma tang

*Paspalum mollicomum* Kunth, Enum. Pl. 1: 47. 1833; *Digitaria hayatae* (Honda) Honda ex Ohwi; ?*D. magna* (Honda) Tuyama; *Panicum hayatae* (Honda) Makino & Nemoto (1925), not A. Camus (1923); ?*P. hayatae* var. *magnum* (Honda) Makino & Nemoto; *Syntherisma hayatae* Honda; ?*S. hayatae* var. *magna* Honda; ?*S. magna* (Honda) Honda.

Short-lived perennial, stoloniferous and mat-forming. Culms slender, flowering shoots ascending, 20–50 cm tall. Leaf sheaths glabrous to pilose; leaf blades linear-lanceolate, 2–6 × 0.3–0.5 cm, glabrous to pilose, short and patent on the stolons, longer and softer on the flowering shoots; ligule 1–2 mm. Inflorescence digitate; racemes 2–3(–5), 3–9 cm; spikelets ternate; rachis ribbonlike, winged, ca. 1 mm broad, margins scabrous; pedicels usually terete, smooth, tips discoid. Spikelets elliptic, 1.7–2.3 mm, hairs smooth or verrucose; lower glume absent or nearly so; upper glume as long as or slightly shorter than spikelet, 3–5-veined, pilose; lower lemma as long as spikelet, with 7 equidistant, rather prominent veins, pilose; upper lemma yellow to pale brown at maturity. Anthers 0.5–0.9 mm. Fl. and fr. Aug–Oct.

Dry sandy soils, near seashores; below 1200 m. Anhui, Jiangxi, Taiwan, Zhejiang [Indonesia, Malaysia, Philippines; Pacific Islands].

*Digitaria magna* is an inadequately known entity which may be synonymous with *D. mollicoma*. *Syntherisma hayatae* var. *magna* was described from Taiwan, but the protologue is not sufficient to establish its identity.

**17. *Digitaria longiflora* (Retzius) Persoon, Syn. Pl. 1: 85. 1805.**

长花马唐 chang hua ma tang

*Paspalum longiflorum* Retzius, Observ. Bot. 4: 15. 1786; *Digitaria propinqua* (R. Brown) P. Beauvois; *Panicum longiflorum* (Retzius) J. F. Gmelin; *P. parvulum* Trinius, nom. illeg. superfl.; *P. propinquum* R. Brown; *Syntherisma longiflora* (Retzius) H. C. Skeels.

Annual or short-lived perennial, usually with slender, many-noded stolons. Culms ascending, leafy, 10–40 cm tall. Leaf sheaths pubescent or glabrous; leaf blades broadly linear,

2–5 × 0.2–0.4 cm, glabrous or papillose-pilose at base, apex acute; ligule 1–1.5 mm. Inflorescence digitate; racemes 2–3, arching at maturity, 2–5 cm; spikelets ternate; rachis ribbonlike, winged, 0.5–0.8 mm broad, midrib low and rounded; pedicels terete, smooth, with discoid tips. Spikelets elliptic, 1.2–1.5 mm, apex acuminate, hairs verrucose; lower glume absent; upper glume as long as spikelet, 5-veined, densely appressed-pubescent; lower lemma as long as spikelet, 7-veined, glabrous between middle and lateral veins, otherwise pubescent; upper lemma yellowish brown or pale gray, apex acuminate. Anthers 0.6–0.8 mm. Fl. and fr. Apr–Oct. *2n* = 18.

Field margins, grasslands, weedy places; 600–1100 m. Fujian, Guangdong, Guizhou, Hainan, Hunan, Jiangxi, Sichuan, Taiwan, Yunnan [Bhutan, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam; Old World tropics, America].

*Digitaria fuscescens* (J. Presl) Henrard differs from *D. longiflora* only by its glabrous spikelets and slightly longer, fractionally exerted upper floret. Most likely it is simply a glabrous variant of *D. longiflora*. It is widespread throughout the tropics, and although reported from S China, no specimens have been seen.

**18. *Digitaria leptalea* Ohwi, Acta Phytotax. Geobot. 11: 31. 1942.**

丛立马唐 cong li ma tang

*Digitaria leptalea* var. *recticulmis* Ohwi.

Perennial, tufted or stoloniferous. Culms ascending, leafy, up to 40 cm tall. Leaf sheaths pubescent or glabrescent; leaf blades linear, 2–5(–10) × 0.2–0.4 cm, glabrous or margins papillose-pilose at base, apex acute; ligule 1–1.5 mm. Inflorescence digitate; racemes 2–3, ascending, slightly arching at maturity, 2–7 cm; spikelets ternate; rachis ribbonlike, narrowly winged, 0.3–0.5 mm broad, midrib low; pedicels almost smooth, with discoid tips. Spikelets elliptic, 1.2–1.5 mm, apex acuminate, hairs verrucose; lower glume an obscure rim; upper glume subequalling spikelet, 5-veined, densely appressed-pubescent; lower lemma as long as spikelet, 7-veined, similar to upper glume; upper lemma purplish black when fully mature. Anthers ca. 0.4 mm. Fl. and fr. Apr–Oct. *2n* = 18.

Dry banks and hillsides. Taiwan [Japan (Ryukyu Islands)].

*Digitaria leptalea* closely resembles *D. longiflora*, but has a very slender rachis and its dark purplish fertile floret is like that of the closely related *D. violascens*.

**19. *Digitaria stewartiana* Bor, Kew Bull. [6] 1951: 166. 1951.**

昆仑马唐 kun lun ma tang

*Digitaria ischaemum* (Schreber) Muhlenberg subsp. *stewartiana* (Bor) Tzvelev.

Annual. Culms tufted, slender, decumbent at base, ascending, 15–30 cm tall. Leaf sheaths glabrous; leaf blades up to 6 × 0.5 cm, glabrous, base subrounded, margins scabrous, apex acuminate; ligule 1–1.5 mm. Inflorescence subdigitate; racemes 2–3, 4–5 cm; spikelets ternate; rachis ribbonlike, broadly winged, midrib triquetrous; pedicels terete, scabrous, tips cupuliform. Spikelets elliptic, 1.8–2 mm, glabrous; lower glume usually absent; upper glume ca. 4/5 as long as spikelet,

hyaline, translucent, glabrous, 3-veined, broadly obtuse; lower lemma purplish, as long as spikelet, 5-veined with 3 central veins close together and outer 2 marginal, veins connected at tip; upper lemma purplish brown at maturity. Anthers ca. 0.5 mm. Fl. and fr. summer–autumn.

Mountains; 2000–3000 m. Xinjiang, Xizang [Kashmir].

This seldom collected species is allied to *Digitaria ischaemum*, but differs in its glabrous spikelets and delicate, rounded upper glume. It may prove to be a high-altitude variant of *D. ischaemum* when better known.

This species is used for forage.

**20. *Digitaria ischaemum*** (Schreber) Muhlenberg, Descr. Gram. 131. 1817.

止血马唐 zhi xue ma tang

*Panicum ischaemum* Schreber in Schweigger, Spec. Fl. Erlang. 16. 1804; *Digitaria asiatica* (Ohwi) Tzvelev; *D. humifusa* Persoon; *D. ischaemum* subsp. *asiatica* (Ohwi) Tzvelev; *D. ischaemum* var. *asiatica* Ohwi; *Panicum humifusum* (Persoon) Kunth; *Paspalum humifusum* (Persoon) Poirét; *Syntherisma humifusa* (Persoon) Rydberg.

Annual, whole plant often purple-tinged. Culms loosely tufted, erect or ascending, 15–40 cm tall. Leaf sheaths loose, usually keeled, glabrous or pilose; leaf blades linear-lanceolate, 5–12 × 0.4–0.8 cm, ± pilose, base subrounded, apex acuminate; ligule ca. 0.6 mm. Inflorescence digitate or on a short axis; racemes 2–4, divaricate, 2–9 cm; spikelets ternate; rachis ribbon-like, winged, 0.8–1.1 mm broad, midrib white, rounded or triquetrous, narrower than the green or purple wings, margins serrulate; pedicels angular, scabrous, tips discoid. Spikelets elliptic, 2–2.2 mm, pilose with verrucose hairs, some with curled tips; lower glume absent or a tiny hyaline rim; upper glume as long as spikelet or slightly shorter, 3–5-veined, intervein spaces and margins appressed-pilose; lower lemma as long as spikelet, 5–7-veined, interveins and margins appressed-pilose; upper lemma purplish brown to blackish at maturity. Fl. and fr. Jun–Nov.  $2n = 36$ .

Open grassy places. Anhui, Fujian, Gansu, Hebei, Heilongjiang, Henan, Jiangsu, Jilin, Liaoning, Nei Mongol, Ningxia, Shaanxi, Shandong, Shanxi, Sichuan, Taiwan, Xinjiang, Xizang [Japan, Pakistan, Russia; Europe, North America].

*Digitaria ischaemum* is very close to *D. violascens*, but has a slightly stouter habit with broader leaves, a few short, widely spreading racemes, and larger, plumper spikelets. It also has a more temperate distribution.

*Digitaria ischaemum*, *D. fauriei*, *D. longiflora*, and *D. violascens* belong to a group of *Digitaria* known as the *Verrucipilae* because of their warty spikelet hairs. A compound microscope is required to see this, but the hairs have a beadlike appearance under moderate magnification. These spikelet hairs also have curled tips in *D. ischaemum* (and sometimes in *D. violascens*), which led to the hairs being described as capitate or clavate in the past.

**21. *Digitaria violascens*** Link, Hort. Berol. 1: 229. 1827.

紫马唐 zi ma tang

*Digitaria chinensis* (Nees) A. Camus (1923), not Horne-

mann (1819); *D. pertenuis* Buse; *D. thwaitesii* (Hackel) Henrard var. *tonkinensis* Henrard; *D. violascens* (Link) var. *villosa* Keng; *Panicum steudelianum* Domin; *P. violascens* (Link) Kunth; *Paspalum chinense* Nees; *P. minutiflorum* Steudel (1853), not Desvaux (1831); *Syntherisma chinensis* (Nees) Hitchcock.

Annual. Culms loosely tufted, infrequently shortly stoloniferous, 20–60 cm tall. Leaf sheaths glabrous or pilose, especially at mouth; leaf blades linear-lanceolate, 5–15 × 0.2–0.6 cm, scabrous, glabrous or adaxial surface pilose at base, apex acute; ligule 1–2 mm. Inflorescence subdigitate; racemes (2–)



3–7(–10), ascending, 3–12 cm; spikelets ternate; rachis ribbon-like, winged, 0.5–0.8 mm broad, midrib low and rounded, margins serrate; pedicels angular, scabrous, with discoid tips. Spikelets elliptic-oblong, 1.4–1.9(–2.5) mm, hairs verrucose, sometimes hook-tipped; lower glume absent; upper glume lanceolate, slightly shorter than spikelet, 3(–5)-veined, intervein spaces and margins appressed-pubescent; lower lemma as long as spikelet, 5–7-veined, intervein spaces and margins pubescent, but usually glabrous flanking the middle vein; upper lemma dark brown or purplish black at maturity. Anthers 0.3–0.6 mm. Fl. and fr. Jul–Nov.  $2n = 36$ .

Hillsides, roadsides, weedy places; ca. 1000 m. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hebei, Henan, Hubei, Hunan, Jiangsu, Jiangxi, Qinghai, Shandong, Shanxi, Sichuan, Taiwan, Xinjiang, Xizang, Yunnan, Zhejiang [Bhutan, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam; Australia, South America].

This widespread, weedy species is closely related to *Digitaria longiflora*, and there is some overlap between the two. *Digitaria violascens* tends to be tufted rather than stoloniferous, with 3 or more longer racemes, angular, scabrous pedicels, a shorter, 3-veined upper glume, and distinctive, blackish fruits.

**22. *Digitaria fauriei*** Ohwi, Acta Phytotax. Geobot. 11: 31. 1942.

佛欧里马唐 fo ou li ma tang

Annual. Culms tufted, shortly stoloniferous at base, 15–20 cm tall, glabrous. Leaf sheaths subcompressed, glabrescent; leaf blades 3–5 × 0.2–0.4 cm, sparsely pilose; ligule ca. 0.4 mm, truncate. Inflorescence subdigitate; racemes 2–4, erect, slender, 3–5 cm; spikelets ternate; rachis winged, 0.8–1 mm broad, wing broader than midrib, margins scabrous. Spikelets oblong-elliptic, 1.3–1.5 mm, pale green, apex acute, hairs white becoming dirty yellow, verrucose, often with coiled tips; lower glume absent; upper glume 1/4–1/2 as long as spikelet; lower lemma elliptic, 5–7-veined, pilose, obtuse; upper lemma purplish black at maturity, elliptic-ovate, subequaling lower lemma. Anthers 0.3–0.5 mm. Fl. and fr. autumn.

- Near seashores, open places. Taiwan (Taibei).

This species is reported in the literature to have paired spikelets, but in fact they are ternate and the hairs are verrucose with coiled tips, not capitate. The species is close to the widespread, weedy *Digitaria violascens*, but is remarkable for its very short upper glume, clearly exposing the purple upper floret, and its curling spikelet hairs.

