

### 38. LEERSIA Solander ex Swartz, Prodr. 21. 1788, nom. cons.

假稻属 jia dao shu

*Homalocenchrus* Mieg, nom. rej.

Perennial aquatic or marsh plants, stoloniferous or rhizomatous. Culms slender, lower part creeping or floating, upper part erect or ascending, many-noded, nodes swollen, hairy. Leaf blades mainly cauline, linear-lanceolate; ligule papery. Inflorescence a lax panicle, branches often simple and racemelike, pedicels short. Spikelets with one floret, elliptic to narrowly oblong, straighter on one side, strongly laterally compressed, disarticulating from pedicel; glumes absent; lemma boat-shaped, keeled, firmly papery or leathery, prominently 5-veined, marginal veins interlocking with marginal veins of palea, keel scabrid to pectinate ciliate, apex acute or beaked, awnless; palea resembling lemma but narrower, 3-veined, keel ciliate. Stamens 1, 2, 3, or 6. Caryopsis oblong, embryo 1/3 length of caryopsis, hilum linear.  $x = 12$ .

About 20 species: tropical and warm-temperate regions of the world; four species in China.

This genus is distinguished from *Oryza* only by the absence of sterile lemmas.

- 1a. Stamens 6; panicle 5–12 cm, branches without branchlets, bearing spikelets to near base.  
2a. Spikelets 3–4.5 mm, lateral veins of lemma minutely spinulose; panicle branches slender, terete ..... 1. *L. hexandra*  
2b. Spikelets 4.5–6 mm, lateral veins of lemma smooth; panicle branches thick, flattened ..... 2. *L. japonica*  
1b. Stamens 3; panicle 10–20 cm, branches with branchlets, lower part long naked.  
3a. Spikelets elliptic-oblong, 5–6 mm, surface strigillose ..... 3. *L. oryzoides*  
3b. Spikelets narrowly oblong, 6–8 mm, surface minutely hispidulous ..... 4. *L. sayanuka*

#### 1. *Leersia hexandra* Swartz, Prodr. 21. 1788.

李氏禾 li shi he

*Leersia australis* R. Brown; *L. parviflora* Desvaux.

Perennial with well-developed stolons and slender rhizomes. Culms decumbent, rooting at lower nodes, erect shoots up to 50 cm or more tall, nodes retrorsely pubescent. Leaf sheaths shorter than internodes, smooth or scabrid; leaf blades flat or sometimes rolled, 5–12 × 0.3–0.6 cm, abaxial surface scabrid on midrib, base contracted, apex sharply acute; ligule 1–3 mm, truncate. Panicle lanceolate-oblong in outline, 5–10 cm, exserted; branches inserted singly, ascending, 4–5 cm, unbranched, slenderly terete or triquetrous, densely clothed to near base with closely overlapping spikelets. Spikelets narrowly elliptic to elliptic-oblong, 3–4 mm, pale green or purple tinged; lemma conspicuously pectinate-hispid on keel, lateral veins and sometimes surface sparsely spinulose, margins shortly hispid, apex contracted into a short obtuse beak. Stamens 6, anthers 2–2.5 mm. Fl. and fr. May–Dec.  $2n = 24, 48$ .

Slow-moving shallow water of lake margins, ditches, and depressions, marshlands, sometimes forming floating mats. Fujian, Guangdong, Guangxi, Guizhou, Hainan, Sichuan, Taiwan, Yunnan [Bangladesh, Bhutan, India, Indonesia, Japan (Ryukyu Islands), Malaysia, Myanmar, Nepal, New Guinea, Philippines, Sri Lanka, Thailand, Vietnam; Africa, America, Australia].

This is a serious weed of rice fields in tropical regions.

#### 2. *Leersia japonica* (Makino ex Honda) Honda, J. Fac. Sci. Univ. Tokyo, Sect. 3, Bot. 3: 7. 1930.

假稻 jia dao

*Homalocenchrus japonicus* Makino ex Honda, Bot. Mag. (Tokyo) 39: 37. 1925; *Leersia sinensis* K. S. Hao.

Perennial, loosely tufted. Culms decumbent, rooting at

lower nodes, upper part geniculately ascending, 60–80 cm tall, nodes densely retrorsely hispid. Leaf sheaths shorter than internodes, scabrid; leaf blades flat, 6–15 × 0.4–0.8 cm, scabrid or abaxial surface smooth, base contracted, apex sharply acute; ligule 2–3 mm, truncate. Panicle elliptic to ovate in outline, 9–12 cm, exserted; branches inserted singly, stiffly ascending or spreading, 4–7 cm, unbranched, thick, slightly flattened, smooth, clothed to near base with approximate or slightly overlapping spikelets. Spikelets lanceolate-oblong, 4.5–6 mm, pale green tinged brownish red; lemma pectinate-hispid on keel only, surface smooth, margins minutely spinulose, apex contracted into a narrowly obtuse beak. Stamens 6, anthers 2.5–3 mm. Fl. and fr. summer and autumn.  $2n = 96$ .

Ponds, flooded fields, wet streambanks, ditch banks, lake shores. Anhui, Guangxi, Guizhou, Hebei, Henan, Hubei, Hunan, Jiangsu, Shaanxi, Shandong, Sichuan, Yunnan, Zhejiang [Japan, S Korea].

#### 3. *Leersia oryzoides* (Linnaeus) Swartz, Prodr. 21. 1788.

蓉草 rong cao

*Phalaris oryzoides* Linnaeus, Sp. Pl. 1: 55. 1753; *Asprella oryzoides* (Linnaeus) Lamarck; *Homalocenchrus oryzoides* (Linnaeus) Haller; *Oryza oryzoides* (Linnaeus) Brand & W. D. J. Koch.

Perennial, loosely tufted, with slender rhizomes. Culms weak, decumbent, rooting at lower nodes, upper part up to 120 cm tall, branching near base, scabrid below panicle, nodes retrorsely hispid. Leaf sheaths longer to slightly shorter than internodes, the upper retrorsely spinulose; leaf blades thin, 7–30 × 0.6–1 cm, scabrid on both surfaces, margins scabrid and spinulose, apex acuminate; ligule 1–2 mm, truncate. Panicle lax, ovate in outline, 10–20 cm; branches 1–3 per node, spreading, up to 10 cm, flexuous, very slender, scabrid, lower part long naked, upper part with branchlets bearing spikelets overlapping along one side of branchlets. Spikelets elliptic-ob-

long, 5–6 mm, whitish with green veins; lemma conspicuously pectinate-hispid on keel and margins, surface strigillose, sometimes sparsely, apex abruptly contracted, subacute. Stamens 3, anthers 1.5–2 mm. Fl. and fr. Jun–Sep.  $2n = 48, 60$ .

Wet river banks, marshy places; 400–1100 m. Fujian, Hainan, Heilongjiang, Hunan, Xinjiang [Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan; N Africa, SW Asia (Caucasus), Europe, North America; introduced in Australia].

This widespread species has a more temperate distribution than *Leersia hexandra*. The panicles are sometimes produced only within inflated upper leaf sheaths, which remain included and bear cleistogamous spikelets with much smaller, 0.5 mm anthers. These enclosed panicles are produced under cooler conditions.

**4. *Leersia sayanuka*** Ohwi, Acta Phytotax. Geobot. 7: 36. 1938.

秕壳草 bi ke cao

*Homalocenchrus oryzoides* (Linnaeus) Haller var. *japonicus* (Hackel) Honda; *Leersia hackelii* Keng; *L. oryzoides* (Linnaeus) Swartz var. *japonica* Hackel; *L. oryzoides* subsp. *japonica* (Hackel) T. Koyama.

Perennial, tufted, with rhizomes. Culms ascending, 30–70 cm tall, nodes retrorsely hispid. Leaf sheaths retrorsely spinulose; ligule 1–2 mm, truncate; leaf blades grayish green, 7–10(–20) × 0.5–1 cm, margins scabrid; ligule ca. 0.5 mm, truncate. Panicle lax, ovate in outline, up to 20 cm, base often enclosed in terminal leaf sheath; branches inserted singly, spreading, up to 10 cm, slenderly triquetrous, scabrid, branched or not, lower part long naked. Spikelets narrowly oblong, 6–8 mm, pale green, whitish along keel; lemma hispid on keel, surface sparsely hispidulous, apex abruptly contracted, obtuse. Stamens 3(or 2), anthers 1–2 mm. Fl. and fr. autumn.

Forests, streamsides, lake shores, moist grassy places. Anhui, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Jiangsu, Shandong, Zhejiang [Japan, Korea].

This species is very close to *Leersia oryzoides* and is not completely distinct from it. It can usually be recognized by its longer, less conspicuously hispid spikelets. *Leersia sayanuka* is not known to produce panicles with cleistogamous spikelets in the leaf axils.

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