

wide, brown; lateral spikes pistillate, occasionally androgynous, 2-6 cm long, 6-8 mm wide, densely many-flowered, erect, peduncled. Lower bracts long-sheathing, blades leafy, much surpassing subtending spike, shorter than inflorescence. Pistillate glumes ovate to lanceolate, 4-5 mm long excluding awn, pale to slightly rusty brown, obtuse or shallowly retuse at apex; awn ca. 5 mm long. Utricles equalling glume, patent to spreading, ovoid, 5-6 mm long, swollen-trigonous, many-nerved, glabrous, beak erect, spinulose-margined, deeply 2-cleft, 1-2 mm long, divergent. Achenes rather tightly enveloped, broadly obovoid, trigonous with angles shallowly constricted at middle, abruptly narrowed into a conspicuous, cylindrical long beak; style enlarged at base; stigmas 3, elongated.

Japan, Korea, the Ryukyus, Bonin Is. and the Pacific island. Taiwan, seacoasts of Lanyu Is.

TAITUNG: Lanyu Is., *Kuoh 4929, Kawakami & Mori 2421, Sasaki s. n.* 1907.

5. CLADIUM P. Browne 克拉莎屬

Tall perennial with thick horizontal rhizome. Culms solitary. Leaves cauline; blades broadly linear, flat, dorsiventrally compressed, strongly serrulate-scabrous on margins, long sheathing. Inflorescence paniculate. Spikelets ovoidal, bearing 6-8 glumes on markedly flexuose rachilla; glumes irregularly spirally disposed, lower 4-6 empty, small, upper 2 bearing flowers, only upper flower producing achene. Stamens 2. Hypogynous bristles none. Stigmas 3. Achene ovoid, subterete, wall thick, corky.

Two species in tropical and warm temperate parts of Eurasia, Pacific islands and North and South America.

1. *Cladium jamaicense* Crantz, *Instit.* 1: 362. 1766.

克拉莎 (一本芝)

Cladium chinense Nees ex Hook & Arn., *Bot. Beech. Voy.* 227. 1841.

Cladium jamaicense subsp. *chinense* (Nees) T. Koyama & Williams, *Pl. Nepal* 105. 1978; Koyama, *Fl. Taiwan* 5: 295. 1978.

Culm 1-3 m tall, terete, often bearing extra-vaginal shoots at lower nodes. Leaves cauline, 60-90 cm long, 8-15 mm wide, thickly coriaceous, strongly serrulate-scabrous on margins; sheaths shorter than internode. Inflorescence 30-90 cm long, with terminal and lateral 5 to 9 anthelas those rather contiguous or lower ones spaced; bracts leafy, sheathing at base, lowers much longer than subtending anthelas. Spikelets congested in globose heads of 4-12, ovate-elliptic to broadly so, 3 by 2 mm, rusty brown. Glumes 6-8, broadly ovate. Flowers bisexual, lower one sterile. Achene 2.5 mm long, brown, rounded at base, apiculate at apex.

Eastern and southeastern Asia, Australia, Pacific Is. and Neotropic. Taiwan, Wetlands and swamps at low elevations.

TAICHUNG: Kirai-shu, *Shimada 5106*. HUALIEN: Tailuko, *Sasaki s. n.*

6. CYPERUS L. 莎草屬

Annual or perennial sedges. Rhizome variable. Culms round to trigonous, solid. Leaf basal, 3-ranked, dorsi-ventral, rarely reduced to a bladeless sheath; Ligule none. Involucral bracts leafy. Inflorescence capitate to umbel-like or paniculate with several clusters of spikelets. Spikelets linear to oblong or elliptic, laterally compressed to terete, rachilla straight or zigzag, persistent. Glumes few to many, 2-ranked, all similar, deciduous or persistent, membranaceous to chartaceous or coriaceous, keel acute to obtuse. Flowers bisexual. Hypogynous bristles none. Stamens 1-3. Stigmas 3 or rarely 2; style. Achenes trigonous or dorsiventrally lenticular.

A cosmopolitan genus with ca. 500 species, 24 species in Taiwan.

KEY TO SPECIES

1. Inflorescence capitate, never branching; glumes 2-ranked to spirally imbricate 18. *C. pygmaeus*