

13. CARYOTA Linnaeus, Sp. Pl. 2: 1189. 1753.

鱼尾葵属 *yu wei kui shu*

Thuessinkia Korthals.

Stems small to very large, solitary or clustered, columnar or swollen, usually ringed with conspicuous leaf scars. Leaves 4–20, spread out along stem, or borne in a compact crown at top of stem; leaf sheaths closed, not forming crownshafts; petioles short or elongate and then rounded in cross section, covered with whitish or brownish hairs, sometimes striped; leaves bipinnate, each primary pinna made up of several secondary pinnae borne on a secondary rachis terminated by a pinna; individual secondary pinnae triangular, with jagged outer margins, often spreading in different planes. Plants monoecious, semelparous, flowering proceeding from top of stem downward (basipetal). Inflorescences usually branched to 1 order, rarely spicate, borne either among or below leaves, covered with many persistent bracts; peduncle bearing a prophyll and several peduncular bracts; rachillae usually many, long and pendulous; flowers unisexual, borne in threes of 1 central female and 2 lateral male; male petals either yellow or purplish; stamens 6–150. Fruits orange, red, or purple, medium sized, usually ± globose, 1- or 2-seeded; mesocarp filled with irritant needle-shaped crystals; endosperm ruminant (homogeneous in one species); germination remote; eophylls bifid [pinnate in one species] with jagged margins.

Thirteen species: from India through SE Asia to the W Pacific; four species in China.

Records of *Caryota no Beccari* ex J. Dransfield from China are based on misidentifications.

- 1a. Moderate-sized palms, with clustered stems; rachillae less than 80 per inflorescence; flowers purple to maroon; fruits purple, purple-black, or brownish purple.
- 2a. Inflorescences with to 60 rachillae 1. *C. mitis*
- 2b. Inflorescences with 1–3 rachillae 2. *C. monostachya*
- 1b. Massive, solitary palms; rachillae more than 80 per inflorescence; flowers yellowish, rarely reddish brown to purple; fruits reddish, orange, or rarely purple.
- 3a. Leaves borne along upper half of stem; primary pinnae pendulous; fruits strictly 1-seeded 3. *C. maxima*
- 3b. Leaves borne in a compact crown at top of stem; primary pinnae spreading; fruits often 2-seeded 4. *C. obtusa*

1. *Caryota mitis* Loureiro, Fl. Cochinch. 2: 697. 1790.

短穗鱼尾葵 *duan sui yu wei kui*

Caryota furfuracea Blume; *C. griffithii* Beccari; *C. griffithii* var. *selebica* Beccari; *C. javanica* Zippelius ex Miquel; *C. minor* Wallich; *C. nana* Linden; *C. propinqua* Blume; *C. sobolifera* Wallich; *C. speciosa* Linden; *Drymophloeus zippellii* Hasskarl; *Thuessinkia speciosa* Korthals.

Stems clustered, to 10 m tall, 8–20 cm in diam., columnar. Leaves borne along upper half of stem; petioles 80–200 cm; rachis 2–2.8 m; primary pinnae 9–23 per side of rachis; secondary pinnae 10–20 per side of secondary rachis, with jagged margins and elongate apices. Inflorescences borne among or below leaves, to 85 cm; rachillae 20–60, 25–65 cm; male flowers to 10 mm; sepals ca. 3 mm; petals purple to maroon, 12–15 mm; stamens 12–24; female flowers to 5 mm; sepals ca. 3 mm; petals 4–5 mm. Fruits purple-black or reddish, globose, to 2 cm in diam.

Lowland rain forests, secondary forests, disturbed areas, and often cultivated; below 1000 m. Guangdong, Guangxi, Hainan [Borneo, Cambodia, India, Indonesia (Java, Sulawesi, Sumatra), Laos, Malaysia (Peninsular), Myanmar, Philippines, Singapore, Thailand, Vietnam].

This species is widely planted as an ornamental.

2. *Caryota monostachya* Beccari, Webbia 3: 196. 1910.

单穗鱼尾葵 *dan sui yu wei kui*

Stems clustered, with few stems per cluster, to 3 m tall, 2–4 cm in diam. Leaves borne almost all along stem; petioles 80–150 cm; rachis 1–2.5 m; primary pinnae 4–9 per side of rachis; secondary pinnae 5 or 6 per side of secondary rachis,

with scarcely jagged margins and short apices. Inflorescences borne among leaves, to 1 m; rachillae 1–3, 30–40 cm; male flowers to 17 mm; sepals 3–5 mm; petals purple to maroon, ca. 17 mm; stamens 60–75; female flowers to 8 mm; sepals 3–5 mm; petals 5–8 mm. Fruits brownish purple, globose, to 3.5 cm in diam.

Lowland to montane rain forests, often on limestone soils; below 1400 m. Guangxi, Guizhou, Yunnan [Vietnam].

3. *Caryota maxima* Blume ex Martius, Hist. Nat. Palm. 3: 195. 1838.

鱼尾葵 *yu wei kui*

Caryota aequatorialis (Beccari) Ridley; *C. bacsonensis* Magalon; *C. furfuracea* Blume var. *caudata* Blume; *C. furfuracea* var. *furcata* Blume; *C. macrantha* Burret; *C. obtusa* Griffith var. *aequatorialis* Beccari; *C. ochlandra* Hance; *C. rumphiana* Martius var. *javanica* Beccari; *C. rumphiana* var. *oxydonta* Beccari; *C. rumphiana* var. *philippinensis* Beccari.

Stems solitary, to 30 m tall, 25–64 cm in diam., columnar. Leaves borne along upper half of stem; petioles 8–30 cm; rachis 2.7–4.2 m; primary pinnae to 27 per side of rachis, pendulous; secondary pinnae 12–27 per side of secondary rachis, with deeply jagged margins. Inflorescences borne among leaves, to 3.5 m; rachillae 80–170, 1.5–2.1 m; male flowers to 15 mm; sepals ca. 5 mm; petals yellowish, 12–15 mm; stamens 80–100; female flowers to 10 mm; sepals ca. 5 mm; petals 6–8 mm. Fruits dull reddish or orange, globose, to 2.5 cm in diam., 1-seeded.

Lowland to montane rain forests or disturbed areas, often planted

or naturalized; 200–1800 m. Guangdong, Guangxi, Hainan, Yunnan [Bhutan, India, Indonesia (Java, Sumatra), Laos, Malaysia (Peninsular), Myanmar, Thailand, Vietnam].

The palm heart is eaten; the stems are used to make implements; and the sheath fibers are used for tinder.

4. *Caryota obtusa* Griffith, *Calcutta J. Nat. Hist.* 5: 480. 1845.

董棕 dong zong

Caryota gigas Hahn; *C. obtusidentata* Griffith; *C. rumphiana* Martius var. *indica* Beccari.

Stems solitary, to 40 m tall, 50–90 cm in diam., often swollen. Leaves borne in a compact crown at top of stem; petioles 1–2 m; rachis 4–5.5 m; primary pinnae 19–22 per side

of rachis; secondary pinnae 20–27 per side of secondary rachis, with scarcely jagged margins and blunt apices. Inflorescences borne among leaves, to 6 m; rachillae to 200, 2–2.9 m; male flowers to 15 mm; sepals 5–7 mm; petals yellowish, ca. 14 mm; stamens ca. 80; female flowers to 10 mm; sepals ca. 5 mm; petals ca. 8 mm. Fruits reddish, globose, to 3.5 cm in diam., often 2-seeded.

Scattered localities in montane rain forests, usually on limestone soils; 1400–1800 m. Yunnan [India, Laos, Myanmar, Thailand, Vietnam].

Material of this species was previously misidentified as *Caryota urens* Linnaeus (FRPS 13(1): 116. 1991).

The palm heart is rich with starch and eaten locally.

