

Hibiscus sabdariffa L.

Standardized Common Name: Hibiscus

Other Common Names: Florida Cranberry, Guinea Sorrel, Jamaica Sorrel, Jamaica Tea, Red Tea, Roselle, Sudanese Tea

Family: Malvaceae

Taxonomy: *Hibiscus* is a diverse, mostly tropical genus that includes about 300 species of herbs, shrubs and small trees. At least 40 of these have been cultivated for food, fiber or ornament. *Hibiscus sabdariffa* originated in Africa but is widely cultivated in warm climates and has been naturalized in many places.

Description: Annual herb. Stem 0.5–2(–5) m high, branched in cultivated plants, sometimes pubescent with stellate hairs or slightly spiny. Leaves alternate, long-petioled, stipulate, 2–15 cm long; shape variable, 3–7-palmatifid or unlobed, suborbicular to elliptical or ovate; lobe apices acute; margins serrate to crenulate; venation palmate, with prominent midrib bearing a single gland. Flowers solitary or in terminal racemes, short-pedicelled, subtended by an epicalyx of 8–12 sepal-like bractlets; bractlets lanceolate, 5–18 mm long, at the base fused to one another and to calyx, slightly pubescent near base with stiff hairs. Calyx of 5 sepals, 15–22 mm long, expanding to 25–35(–55) mm in fruit; bases fused into a cup shape; lobes triangular to ovate, with acute apices, glabrous or slightly pubescent. Epicalyx and calyx red, becoming enlarged, fleshy and dark red or purplish in fruit except for base of inner side of calyx, which is lighter. Petals 5, obovate, 3–5 cm long with rounded apices, cream to yellow often with reddish center. Stamens numerous; filaments fused into a column around the style, shorter than corolla, bearing anthers over almost all of length. Style with 5 apical branches. Fruit a loculicidal capsule, 5-loculed, 18–25 mm long at matu-

rity, apiculate, usually pubescent with stiff appressed hairs; seeds numerous, 3–5 mm long.

Parts in Commerce: Flowers (after flowering and loss of corolla, consisting mostly of calyx and epicalyx)

Identification:

- Fused calyx, cup-shaped at bottom and with 5 lobes, with epicalyx of 8–12 pointed bracts at base; if broken, wrinkled portions of cup and discrete lobes are present
- Both epicalyx and calyx dark red to purplish, with yellowish areas inside calyx
- Thick and fleshy, brittle when dried
- Intact calyx at least 2.0–3.5 cm long
- Epicalyx bracts 5–18 mm long, narrowly triangular or lanceolate with acute tips; slightly hairy at base
- Calyx lobes more or less triangular, curving together; apices acute but not narrowly acuminate
- Calyx lobes with three nerves, a midvein and two nerves following margins; marginal nerves of adjacent lobes fuse into a single nerve beneath the point where the lobes join the cup
- Inconspicuous nectary present on midvein on inner side of calyx
- Calyx hairless or with some hairs, but not densely hairy or with long bristles
- Taste sour, acidic

Adulterants: *Ricinus communis* L. (castor bean) has once been claimed to be an adulterant of Hibiscus. As the flowers are far different, one presumes that this referred to a mistaken use of *Ricinus* leaves rather than *Hibiscus* leaves, which are sometimes used in folk medicine. Leaves of *Ricinus* are broadly palmately compound and slightly peltate; the main venation is palmate, connected by wavy secondary veins that form a circular pattern; paired small dark glands may be found at the base of the petiole, but no midrib gland.

***Hibiscus rosa-sinensis* L.:** According to *Herbs of Commerce*, *H. rosa-sinensis* (aka China Rose, Chinese Hibiscus, Red Hibiscus, Rose of Sharon, Shoeflower) and *H. sabdariffa* are interchangeably marketed as Hibiscus; the latter is the more commonly used. They are not closely related, and restriction of “Hibiscus” to these two species is probably done for aesthetics and convenience. Hibiscus usually is used to add color and flavor to a beverage, and both of these species have large, colorful flowers. In the case of *H. rosa-sinensis*, described below, it is the petals that are large, red and sour; thus the whole flower is employed. This plant is known only from cultivation, and a great many cultivars have been developed. For research purposes, it would be essential to distinguish between the two species.

***Hibiscus rosa-sinensis*:** Perennial shrub to 5 m high, branching. Leaves alternate, petiolate, stipulate, ovate to broadly ovate, 4–15 cm long; bases rounded or truncate to subcordate or slightly cuneate; apices acute to acuminate; margins irregularly serrate; venation palmate. Flowers solitary, pedicellate. Epicalyx of (4–)5–8(–9) bracts, free, 5–10(–18) mm long, narrowly ovate to lanceolate, acute, with few small stellate hairs. Calyx tubular-campanulate, 18–24(–30) mm long, 10-nerved, 5-lobed; lobes deltoid, apices acute. Petals 5, or 10 in some cultivars, 5–10 cm long, obovate with rounded apices and crenate margins, bright red, sometimes with a dark spot at base. Filaments fused into androecial column extending beyond corolla, to 12 cm long, bearing anthers from midpoint upward. Style to 13 cm long, with 5 apical branches. Fruit a loculicidal capsule, 5-loculed, oblong, about as long as calyx. Petals taste acidic.

References:

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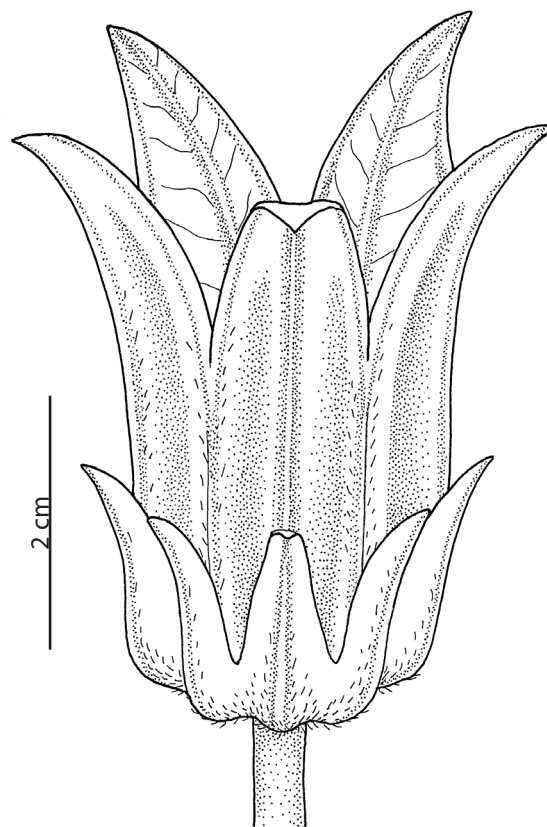


Figure 32: *Hibiscus sabdariffa* calyx.