

# Chamaedorea Falcifera

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A recent survey of the species of *Chamaedorea* native in Guatemala has brought to light specimens that represent a new species described here as *Chamaedorea falcifera*.\* The specific epithet is a Latin adjective meaning "carrying a scythe or sickle" and is used because of the curious sickle-shaped fruits. Although it is not in cultivation, *C. falcifera* would be an attractive addition to those already grown. Its home is in the dense wet lowland forests at low elevations (to 300 meters) in the department of Izabal where Dr. Julian A. Steyermark collected it in several localities.

Most chamaedoreas have black fruit that is green when immature. *Chamaedorea falcifera* has orange fruit, similar in this respect to *C. neurochlamys* recently introduced from British Honduras by James E. Smith, and to *C. concolor* of eastern Mexico. Indeed, these three species, plus others of Central America and northern South America form a rather homogeneous group within the genus, characterized not only by their orange fruit (sometimes purplish-black when completely ripe) but as well by the strong nerves that are prominent on the flowers when these are dried, and by the unusual manner in which the corolla of the male flowers opens. The petals are united and compressed into a long narrow base, then expanded and again united at their tips so that the only way for pollen to escape or for insects to enter is through lateral slits where the petals are free. A few other species of *Chamaedorea* have orange or red fruits (among them *C. radicalis* described in

*Principes* 1: 147. 1957) but the male flowers have petals that are free to the tip. It is not yet possible to present a complete key for distinguishing all the species related to *C. falcifera* but the accompanying illustration shows its nature.

The type of the species is a fruiting specimen in the Chicago Natural History Museum collected on Cerro San Gil, along Río Frío, Department Izabal, Guatemala, altitude 50-75 meters, December 19, 1941, *J. A. Steyermark* 41640. A male specimen in the same museum, designated as paratype, was collected between Bananera and "La Presa" in Montaña del Mico, Department Izabal, Guatemala, April 9, 1940, *J. A. Steyermark* 39191. The species has also been collected in jungle bordering Quebrada Roseúl, lower slopes bordering eastern part of Cerro Santa Cruz, northeast of San Felipe in Department Izabal, and somewhere in the eastern portion of Verapaz and Chiquimula.

*Chamaedorea falcifera*\* is a species with slender solitary stems 1-6 meters high, 5-7 mm. in diameter and short internodes 1.5-3.2 cm. long. From 3 to 5 pinnate leaves have cylindric sheaths briefly oblique at the apex and 6-9 cm.

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\**Chamaedorea falcifera* sp. nov. *C. concolori* affinis; inflorescentiae masculae rachillis paucis pendulis, femineae rachillis paucis, fructibus falcatis acutis 1.1-1.4 cm. longis; pinnis utrinque 3-4, horum nervis primariis 3, secundariis utrinque 1-3. Guatemala: Dep't. Izabal; along Río Frío, alt. 50-75 m., Dec. 19, 1941, *J. A. Steyermark* 41640 (F, typus), between Bananera and "La Presa" in Montaña del Mico, alt. 50-150 m., Apr. 9, 1940, *J. A. Steyermark* 39191 (F, paratypus).



Fig. 45. *Chamaedorea falcifera*. a, leaf  $\times \frac{1}{2}$ ; b, top of sheath  $\times \frac{1}{2}$ ; c, staminate inflorescence  $\times \frac{1}{2}$ ; d, section of staminate rachilla  $\times 3$ ; e, staminate calyx  $\times 10$ ; f, staminate flower  $\times 10$ ; g, staminate corolla  $\times 10$ ; h, staminate flower in vertical section  $\times 10$ ; i, stamens in side, back, and front views  $\times 10$ ; j, pistillate inflorescence  $\times \frac{1}{2}$ ; k, fruit  $\times 2$ ; l, seed  $\times 2$ ; m, seed in vertical section  $\times 2$ ; n, base of fruit with abortive carpels  $\times 8$ ; o, abortive carpels in vertical section  $\times 8$ ; p, abortive carpels in cross section  $\times 10$ ; q, pistillate flower reconstructed  $\times 5$ . Flowers drawn from reconstituted material with nerves less prominent than when dry. Illustrator: Marion Ruff Sheehan.

long. The petiole is pale below as is the rachis, the former measuring 6.5-12 or rarely as much as 33 cm. in length, the latter 10.5-23 cm. long. Pinnæ are 3 or 4 on each side, rich shining green above, paler dull green below. All have acute to acuminate tips and are sigmoid (elongate S-shaped) in outline, the terminal pair is broadest and 14-16 or rarely 21 cm. long on the upper margin, 5.5-9 cm. long the rachis with one side lower than the other; lower pinnæ are progressively smaller, those near the middle 11-14 or to 21 cm. long, 2.5-3 or to 4.5 cm. wide, those at the base 7.5-9 (rarely to 18) cm. long, 1-1.5 (rarely to 3) cm. wide. Each pinna has prominent central and submarginal nerves and 1-3 pairs of inconspicuous secondary nerves on each side, at least the central nerve somewhat elevated and keeled on the upper surface. Arching inflorescences nodding at the tip appear below the leaves, the male subtended by 3, the female by 4 tubular brown bracts, the lower of which is inserted about 1 cm. above the flattened base. Peduncles measure 16-21 cm. long, the staminate bearing 4-7 spreading-pendulous slender green branches 6-14.5 cm. long from a rachis 1-2 cm. long, the female with 4-8 slender stiffer branches

5.5-13 cm. long from a rachis 1.5-2 cm. long, these branches becoming vermilion as the fruit matures. Strongly ribbed (when dry) yellowish-green male flowers are about 2 mm. high and essentially superficial and spirally arranged on the branches of the inflorescence, the sepals united in a deeply and imbricately 3-lobed calyx 0.75 mm. high, the petals shortly united and laterally compressed into a linear base, then expanded and again united by their tips so that the corolla opens by lateral slits. The 6 stamens are about as high as the 3-angled truncate pistillode, with very short filaments and anthers that are entire at the tip, divided at the base. Female flowers have not been available for study but the nerved (when dry) perianth persists at the base of the fruit, the calyx being 0.7 mm. high and shallowly 3-lobed, the petals imbricate and about 2 mm. high. There is no evidence of staminodes. The fruit is orange, sickle-shaped and acute at the tip, measuring 1.1-1.4 cm. long, 3-4 mm. in diameter. Fruit coats are thin but the mesocarp is rather strongly fibrous, the endocarp membranous, enclosing a seed 9 mm. long, 2 mm. in diameter, with the embryo borne at the middle.

## PLANT NAMES

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baric" origin, not original Latin). Neuter names are also to be found among those ending in "-ma" as is noted in the discussion of feminine names.

No really workable generalizations can be made for generic names having terminations other than those already noted—the genders of such names must be learned by practice and by consulting reliable authorities. Unfortunately, the reliability of many otherwise trust-

worthy texts is only relative in the matter of grammatical gender; even the most revered taxonomists, past and present, have occasionally gone astray in this tangled forest. Some names and name-elements have been so consistently assigned an incorrect gender, in fact, that the International Code recommends that certain of these continue to be so treated, "in accordance with botanical custom." Such of these which apply to commonly cultivated plants have been mentioned above.