

and *E. Sartori*, but it is questionable whether these two palms are congeneric (if separated from *Chamædorea*) or whether that small genus is yet properly defined.

† **Chamædorea Woodsoniana**, spec. nov. Fig. 124.

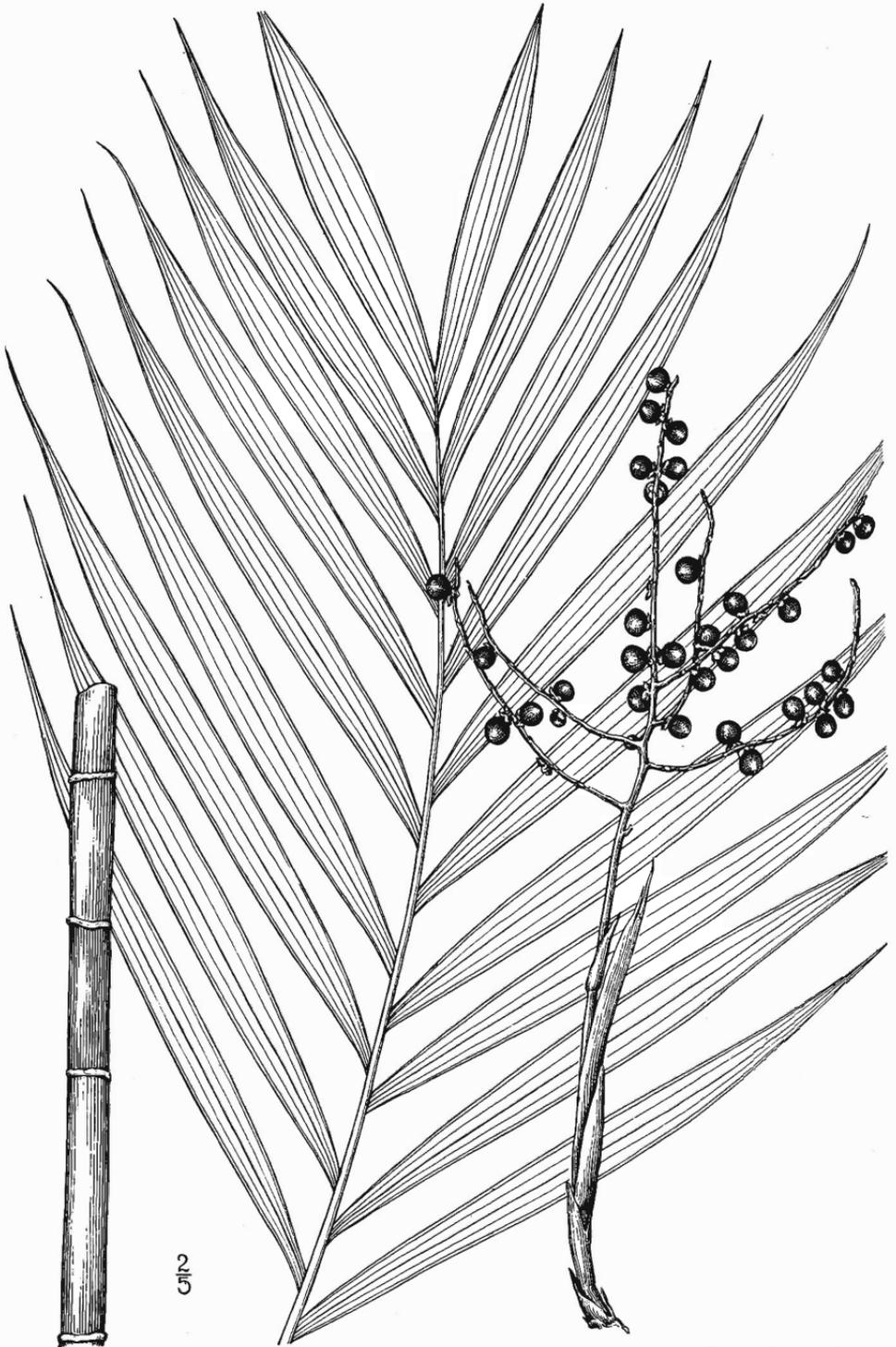
Valida, 5-12 m. alta; lamina 1 m. longa, 20 vel plus jugis oppositarum vel suboppositarum glabrarum satis virentium pinnarum; petiolus 20 cm. vel plus longus super vaginam, valde sulcatus; vagina 30 cm. vel plus longa, lata et plana, multi-striata; pinnæ 60-65 cm. longæ, 3-5 cm. latæ in medio, recte angustatæ ad longum gracilemque apicem, conspicue costatæ, 5 majores costæ 5-7 mm. inter se distantes: spadix staminata magna et diffusa, 75 cm. vel plus longa et valde lata; rachillæ multæ, tenues et flexuosæ, 20-50 cm. longæ; spadix pistillata minor, 15-25 cm. lata cum matura: fructus globularis, 8-10 mm. diam., reticulatus cum siccus; cupula 6-7 mm. diam., profunde lobata.

Stout, 5-12 m. tall, slender: leaf-blade 1 m. long, with 20 or more pairs of opposite or subopposite long and large glabrous dark green pinnæ; petiole 20 cm. and more long above the sheath, strongly ridged on top and more or less triangular in cross-section; sheath 30 cm. and more long, stoutly many-striate, 3-4 cm. broad at middle, clasping the cane, narrowly winged at apex; main pinnæ 60-65 cm. long, 3-5 cm. broad or the upper ones less than 2 cm., gradually and straightly tapering into long narrow ends or the young upper ones slightly curved but not sigmoid and caudate, all conspicuously ribbed particularly underneath, the central rib more pronounced than the 2 others on either side, intermediate nerves not prominent, the 5 main ribs 5-7 mm. apart: staminate spadix or truss large and diffuse in anthesis, 75 cm. and more long and very broad, on a many-sheathed peduncle 30-65 cm. long, sheaths soon shreddy; rachillæ numerous, slender and flexuose, glabrous, simple or some of them once or twice forked, 20-50 cm. long, laxly flowered; pistillate spadix much like the staminate but rachillæ fewer, shorter and less diffuse, 12-20 of them 10-30 cm. long: fruit globular, 8-10 mm. thick in mature dry state, somewhat fleshy on exterior, becoming wrinkled and reticulate in drying, cupule about 6-7 mm. across and with very broad lobes.

Vicinity of El Valle de Anton, Coelé, altitude about 600 m., *Allen 1901* (type), collected in 1939; Chiriqui in vicinity of Casita Alta, Volcán de Chiriqui, 1,500-2,000 m. altitude, *Woodson, Allen & Seibert 948*. Probably in Costa Rica. This plant has been confused with *C. macrospadix* and *C. costaricana*, both of which have sigmoid pinnæ.

† **Chamædorea Seibertii**, spec. nov. Fig. 125.

Gracillima, 2 m. alta, caules 1-2 cm. diam., annulati intervallis 2-3 cm.: lamina 50-90 cm. longa, 16-24 alternis vel suboppositis jugis rectorum pinnarum; petiolus gracilis, 12-14 cm. longus super vaginam striatam; pinnæ lætevirentes, glabræ, 20-25 cm. longæ, 1-2 cm. latæ, gradatim angustatæ ad longum et tenue acumen, aliquid angustatæ ad basim, costa media prominens, plures nervi laterales conferti: spadix pistillata compo-



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125. THE NARROW PINNÆ, SPADIX, SECTION OF TRUNK of *Chamædorea Seibertii*.

sita circa 6 aurantiis rachillis 6-12 cm. longis in rachide tantum 4-5 cm. longa: fructus globularis, olivicolor, 7-8 mm. diam., rugosus cum siccus; cupula parva, profunde lobata, 4-5 mm. diam.

Very slender, canes 1-2 cm. thick, ringed at intervals of 2-8 cm., plant 2 m. tall: leaf-blade 50-90 cm. long, bearing 16-24 alternate or subopposite pairs of very narrow glabrous many-nerved straight pinnæ; petiole slender, angled, 12-14 cm. long above the tight closed finely striate sheath which is 18-20 cm. long; pinnæ light green, thin, 20-25 cm. long and 1-2 cm. broad, tapering regularly to a long slender point which is often broken away, somewhat narrowed to base, standing 2-3 cm. apart on the very slender flattened rachis, with straight prominent midrib and several side nerves close together: pistillate spadix composed of about 6 orange-colored branches or rachillæ 6-12 cm. long issuing from a rachis only 4 or 5 cm. long, the slender reddish-orange peduncle 14-15 cm. long that bears 3 or 4 sheaths that soon become shreddy and fall at fruiting time and leave the ringed scars of their attachment: fruit globular, 7-9 mm. thick when dry and deeply wrinkled from the shrinking of the thin flesh, green or olive-green when fresh; cupule small, 4-5 mm. in expansion, deeply lobed.

Chiriqui, Panama: valley of the upper Rio Chiriqui Viejo, vicinity of Monte Lirio, 1,300-1,900 m., *R. J. Seibert 218* (type, Mo. Bot. Gard.); vicinity of Callejón Seco, Volcán de Chiriqui, altitude 1,700 m., *Woodson & Schery 502*, and by others. This is one of the plants mistaken for *C. costaricana*, Oersted.

† *Chamædorea Allenii*, spec. nov. Fig. 126.

Erecta, ad 2 m. alta: folia regulariter pinnata, glabra, costata, aliquid nitida; lamina 60-70 cm. longa; petiolus 30-35 cm. longus super vaginam, carinatus et striatus, 5-7 mm. latus; pinnæ circa 9 jugæ, alternæ vel suboppositæ et non plus quam 3 vel 4 cm. inter se distantes, 25-30 cm. longæ, 3-6 cm. latæ, angusto-lanceolatæ, non sigmoideæ, acute acuminatæ vel caudatæ, prominenter circa 9-costatæ, pinnæ terminales confluentes: spadix solitaria simplex densa spica circa 8 cm. longa; pedunculus circa 24 cm. longus, omnino inclusus 4 vel 5 laxis vaginis; flores pistillati lutei, octomeri, valde compacti, plus vel minus immersi; calyx non profunda integra cupula; petala 3, strictè includentia ovarium; styli 3, magni, exserti, reflexi, sessiles.

Erect, 2 m. tall: leaves uniformly pinnate, blade 60-70 cm. long, glabrous, firm in texture, more or less glossy; petiole about 30-35 cm. long above narrow sheath, ridged and striate, 5-7 mm. broad; pinnæ alternate or subopposite, about 9 pairs, equally spaced and not more than 3 or 4 cm. apart, terminal pair confluent, 25-30 cm. long, 3-6 cm. broad, narrow-lanceolate and not sigmoid, somewhat narrowed to base, acutely acuminate to caudate, prominently about 9-ribbed, main ribs 4-7 mm. apart, light colored and pronounced on under surface, nearly confluent at base: spadix a single simple very dense spike about 8 cm. long at anthesis, on a peduncle 24 cm. long and which is completely contained in about 4 loose sheaths of which the uppermost is projected 3-4 cm. with an acuminate herbaceous end; pistillate flowers in 8 rows, bright yellow, so closely placed as to appear to be immersed in the rachis; calyx a shallow more or less undulate but not