

to the efforts of that keen collector Paul Allen who made additional trips to the type locality to secure fruit and photographs.

† *Chamædorea erumpens*, spec. nov. § *Chamædoropsis*. Figs. 96, 97.

Coloniata; caules numerosi, ad 3 m. alti: folia ca. 4, regulariter pinnata, glabra; pinnæ lanceolatæ, ad 27.5 cm. longæ, 30 mm. latæ vel apicalæ ad 9 cm. latæ, uninervatæ apicalibus exceptis, cum utrinque 14-15 tum apicales 2-3-nervatæ cumve utrinque 5-6 tum apicales 7-9-nervatæ: spadices interfoliata vaginam erumpentes vel demum infrafoliati; spathæ 5 pedunculum 4.5-8.5 cm. longum æquantales vel excedentes; 6-11 rachillæ 7.5-15 cm. longæ; flores masculi 1-1.2 mm. alti, petalis liberis, pistillodiis columnaribus; flores feminei 3 mm. alti, petalis acutis, staminodiis 6 squamiformibus; fructus 8 mm. diam., niger; semen globosum 6 mm. diam.

Soboliferous; stems to 40 in a clump, to 3 m. high or more, 11-17 mm. diameter, internodes 21.5-6.5 cm. long: live leaves about 4, regularly pinnate, glabrous; sheath 16.5-20 cm. long, striate; petiole 4.5-7 cm. long, convex below, canaliculate above; rachis 42-47.5 cm. long, convex below, bifacial above; pinnæ 14-15 on each side, the terminal 2-3-nerved, the remainder 1-nerved with a pair of prominent secondary and numerous closely spaced fine tertiary nerves on either side, or 5-6 with the terminal pair 7-9-nerved, lanceolate, gradually tapered to a subfalcate shortly acuminate apex or the upper merely acute, not decurrent at base, green, concolorous, thin, the basal 7-18 mm. wide, to 20 cm. long, the median 25-30 mm. wide, to 27.5 cm. long, the subapical 15 mm. wide, 15 cm. long, the apical 2.5-3 or to 9 cm. wide, 11-15 cm. long: staminate spadix interfoliar, erumpent at base of sheath, green; peduncle 4-5.5 cm. long; spathes 5, closely sheathing, the lower short, the fourth often nearly equalling the rachis and concealing the incomplete fifth; rachis 2-4.5 cm. long; rachillæ 6-11, simple or the lower rarely once or twice furcate, 7.5-15 cm. long, 2 mm. diameter (in vivo): flowers yellow, somewhat sunken in a lax more or less tristichous spiral; sepals very shortly connate at base, imbricate above, 1-1.2 mm. high, thickened basally; petals shortly connate at base, valvate above, thickish, not coherent at apex, 3 mm. high (in vivo), the apex incurved and more or less flattened; stamens 6, about three-fourths as high as petals, filaments connate at base but not forming a stipe, free above, abruptly narrowed from a broad base, anthers brownish (in vivo), introrse, dorsifixed at the middle, the locules separate above; pistillode columnar, 3-lobed at apex, slightly shorter than petals, the apex prominently visible at anthesis: pistillate spadices green at anthesis, orange in fruit, mostly infrafoliar, to 7 in flower or fruit at once; peduncle 5.5-8.5 cm. long; spathes 5, similar to those of the staminate spadix; rachis 1-2.3 cm. long; rachillæ 4-6, all simple, 9-10.5 cm. long, 3 mm. diameter (in vivo), becoming thickened in fruit, grooved below each alveolus: flowers yellow, somewhat sunken in a lax more or less tetrastichous spiral; sepals imbricate, 1-2 mm. high, to 1 mm. thick at the gibbous base, drying yellow; petals imbricate, ovate, acutish, 3 mm. high, drying brown; staminodia 6, minute and scale-like, generally bilobed; ovary subglobose, ca. 1.2 mm. high, stigmas sessile, erect or slightly recurved, papillate, ovules attached near apex of cavity: fruit globose, 8 mm. diameter, black; exocarp thin, finely reticulate; mesocarp thin, yellow,

pulpy with few slender fibers attached to the crustaceous thin endocarp; seed globose, 6 mm. diameter, testa brown, smooth, without prominent raphe; albumen plane, embryo lateral.

Cultivated at Fairchild Tropical Garden, Coconut Grove, Florida, said to be from seeds obtained in British Honduras by W. A. Schipp. March 28, 1951, *Moore 5830* (staminate, type) and *5829* (pistillate).

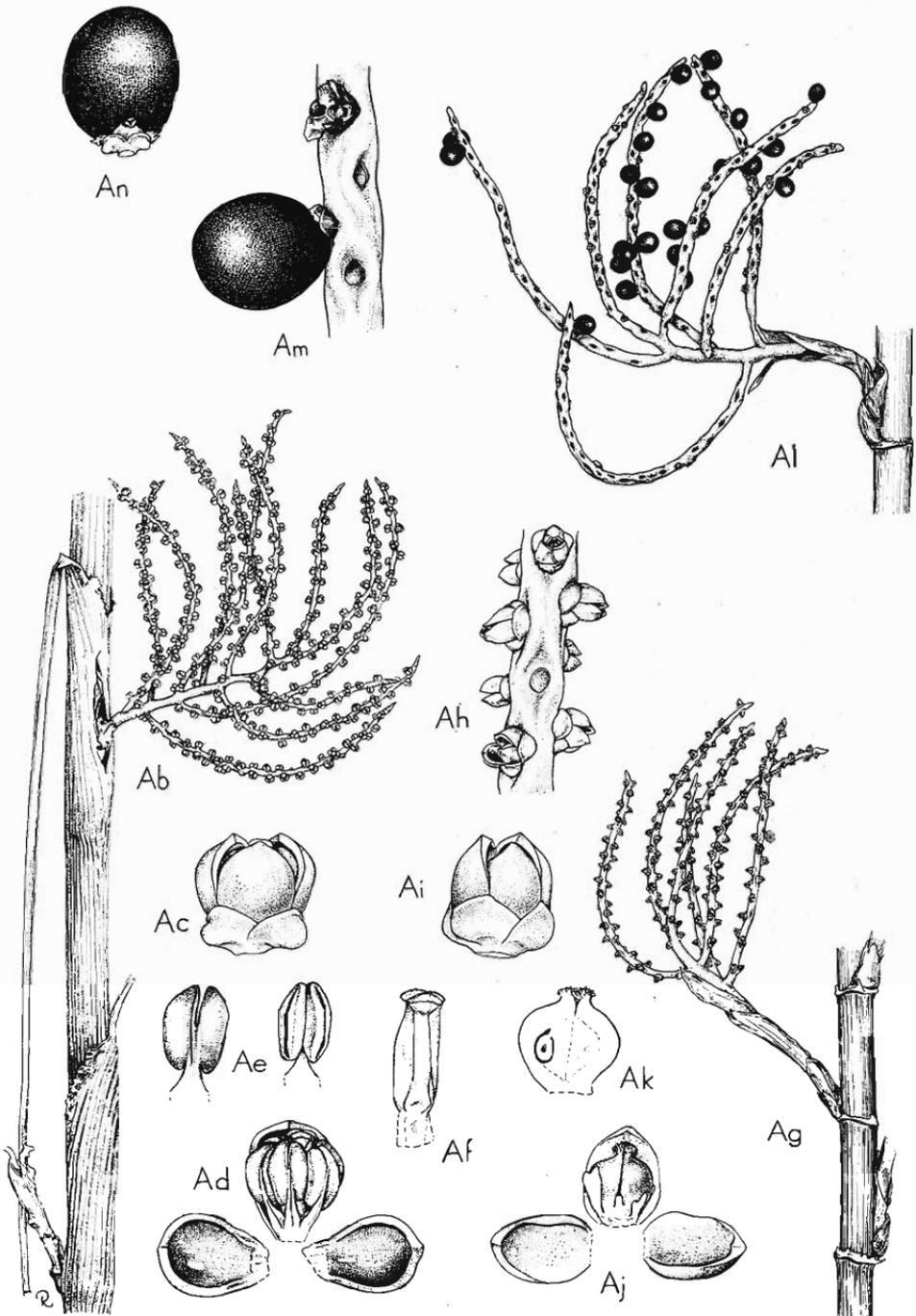
Hv. 'Fairchild' differs from the material considered typical of the species in having the pinnæ 5-6 to a side on a slightly foreshortened rachis, the apical pair 7-9-nerved and as much as 9 cm. wide.

Cultivated at Fairchild Tropical Garden, with the typical phase, *Moore 5832* (staminate, type) and *5831* (pistillate).

This attractive colonial palm has entered cultivation in the United States in recent years and Mr. Harry Dunaway, Superintendent of the Fairchild Tropical Garden, states that it is much used as an indoor plant for club and restaurant decoration in Florida where it has gone by several names, among them *Chamædorea Schippii* and *C. elegans*. The name given here refers to the manner in which the very short spadices of at least the staminate plants burst through the leaf-sheath but might equally refer to the manner in which it has suddenly come into prominence as a cultivated palm.

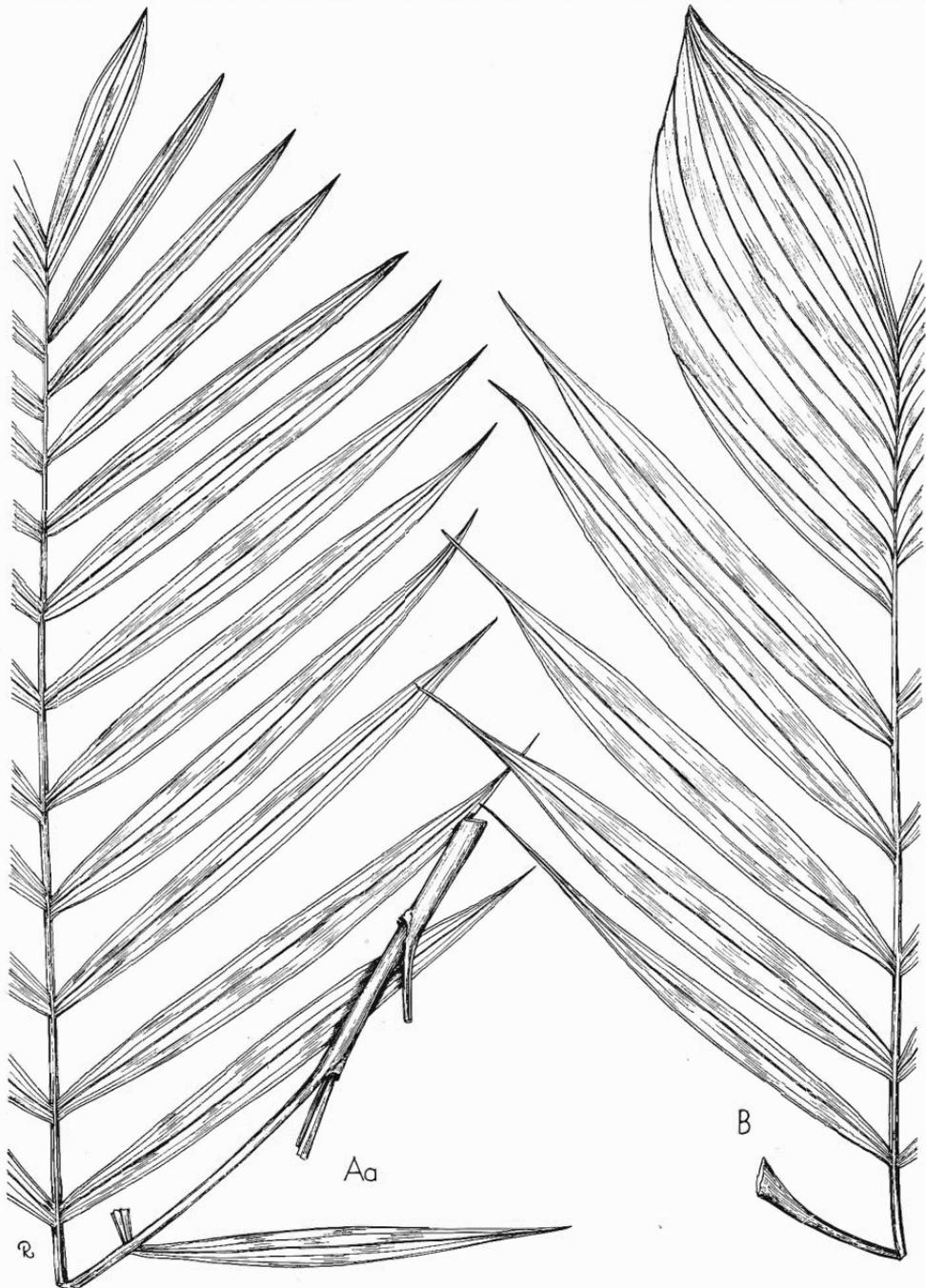
Two leaf facies occur in the species. That with the pinnæ regularly arranged has been arbitrarily selected as typical. The other, with the terminal pinnæ united, is designated above as a hortvar. honoring Dr. David Fairchild. Both types are growing together, presumably having come from the same lot of seed, and examination of living and herbarium material discloses no difference other than that found in the foliage. Such variation is not uncommon in the wild, having been observed by the writer in *Chamædorea microspadix*, Burret and *C. Pringlei*, Wats. Herbarium specimens of other species show similar tendencies at times. Although I cannot separate the two phases on a biological basis it seems advisable to designate the broad-tipped form in some manner since it is in cultivation and will undoubtedly be the recipient of one or more names if its relationship to the more usual form is not indicated. For that reason it is described as a hortvar. following recommendations of the Stockholm Congress in 1950. As both staminate and pistillate plants bear the same type of foliage and come from wild stock, it is apparent that more than a clonal selection is under consideration and the form may breed true from seed. Further study of variation in this species will be of interest.

Chamædorea erumpens is one of two or perhaps three allied species having pinnate leaves and very short spadices with the rachillæ equalling or exceeding the peduncle. In many instances the spadix of these species, particularly in the staminate plants, bursts through the base of the leaf-sheath, becoming infrafoliar later by loss of the old sheath. There is great



96. *CHAMEDOREA ERUMPENS*. Ab, staminate spadix $\times \frac{1}{3}$; Ac, Ad, staminate flower, side and expanded $\times 5$; Ae, stamens $\times 7$; Af, pistillode $\times 7$; Ag, pistillate spadix $\times \frac{1}{3}$; Ah, portion of pistillate rachilla $\times 2$; Ai, Aj, pistillate flower, side and expanded $\times 5$; Ak, ovary in section $\times 7$; Al, fruiting spadix $\times \frac{1}{3}$; Am, An, fruit $\times 2$.

similarity in floral morphology where this has been investigated. The species here described differs from its allies principally in the shape and nervation of the pinnæ, these being lanceolate rather than linear, at least



97. CHAMÉDOREA ERUMPENS. Aa, leaf $\times \frac{1}{3}$; B, hv. 'Fairchild', leaf $\times \frac{1}{3}$.

twice as broad as those of the others with a prominent pair of secondary nerves on either side of the primary or midnerve and numerous fine closely set tertiary nerves. *Chamædorea Seifrizii*, Burret is the only species previously described having close relationship but it differs in the linear pinnæ, 10 mm. broad or less and in habit, having been noted as a scrambling palm. Perhaps this last may prove the same as that discussed in detail by O. F. Cook under the illegitimate name of *Meiota campechana* (Nat. Hort. Mag. xxii, 138-139, 1943). What may be a third species is represented in the Bailey Hortorium by cultivated specimens from Cuba. Until more adequate or authentic material is available for comparison, a complete study of this small group cannot be accomplished.

Relationship with other species of the section *Chamædoropsis* is not easy to determine. The foliage bears considerable resemblance to that of *Chamædorea Karwinskyana* and others but all these have long-pedunculate spadices that emerge through the apex of the leaf-sheath.

† *Chamædorea ferruginea*, spec. nov. § *Chamædoropsis*. Fig. 98.

Caulis ad 4 m. altus: folia pinnata; petiolus elongatus, tenuis, dense ferrugineo-lepidotus; rachis 16-19 cm. longus, punctatus et sparse lepidotus; pinnæ utrinque 3-6, supra atrovirides, subtus pallidiores, lineares vel lineari-lanceolatae, basales 3-4-nervatae, fenestratae, 28 cm. longæ, 1.5-1.8 cm. latæ, intermediæ 1-nervatae, ad 31 cm. longæ, ad 5.5-7 mm. latæ, apicales 3-5-nervatae, 20 cm. longæ, 1.7-2.2 cm. latæ: spadix masculus simpliciter ramosus, longe pedunculatus; spathæ 6, tubulares, quinta quam sextam incompletam longior; rachillæ 20, erectæ vel patentés, 8.5-3.8 cm. longis; flores sessiles, globosi, calici tridentato, 0.5 mm. alto, petalis 2.5 mm. altis, valde nervatis, ad apicem connatis basin versus liberis, staminibus 6 petalis brevioribus, pistillodio columnari: spadix femineus ignotus.

Stems to 4 m. high: leaves pinnate, with 9-11 nerves on either side; petiole slender, elongate, 40 cm. long or more, 3 mm. thick, sulcate when dry, greenish and densely ferrugineous-lepidote; rachis 16-19 cm. long, triquetrous, green, dark punctate and sparsely lepidote; pinnæ glabrous, dark green above, slightly paler beneath, with the nerves pale and prominent, linear to linear-lanceolate, not decurrent, 3-6 on either side of the rachis, the basal pair 3-4-nerved, fenestrate at rachis, acuminate at apex, to 28 cm. long, 1.5-1.8 cm. wide, the 1-4 intermediate 1-nerved, to 31 cm. long, 5.5-7 mm. wide, the apical 3-5-nerved, more or less fenestrate at rachis, to 20 cm. long on inner margin, 1.7-2.2 cm. wide, 6.5-9 cm. along the rachis: staminate spadix simply branched; peduncle 21 cm. long; spathes 6, tubular, striate, brown, bifid at apex, the first 1.8 cm. long, the fifth nearly equalling the peduncle, exceeding the incomplete sixth; rachillæ 20, erect or spreading, 8.5-3.8 cm. long, 0.5-1 mm. wide: flowers sessile, globose, 2.5 mm. high; calyx, 3-lobed, 0.5 mm. high, petals 2.5 mm. long, brown, prominently nerved and more or less reticulate when dry, coherent at the apex with tip of the pistillode, free toward the base; stamens 6, shorter than the petals, filaments very short, anther-sacs united