

glabrous above, paler and more or less densely brown-hirsute below, ca. 23-veined, the veins about equal, impressed above, prominent, and minutely aculeate below: spadix simply branched, robust, ca. 3 m. long (fide collectors); spathes unknown; peduncle 1.5 cm. diameter, deciduous-tomentose, hispidulous, and moderately armed with stout flat deciduous-tomentose black spines to 6 cm. long; rachis similar but unarmed above base and densely hispidulous toward apex; rachillæ numerous, stout, ca. 6 mm. wide at insertion, 3-4 mm. diam. above, to 30 cm. long or more, densely setulose; staminate flowers unknown; pistillate fls. more or less deeply immersed in rachis, the perianth accrescent in fruit, petals 6 mm. high, acute, deltoid, slightly exceeding the sepals, united basally, staminodial ring ca. 2.5 mm. high, irregularly lobed: fruit rose-red at maturity, globose, rostrate, 16-17 mm. diameter; exocarp thin, smooth, drying roughened; mesocarp thin with few fibers; endocarp globose, chocolate-brown, 14-15 mm. in diameter, 2-4 mm. thick, deeply pitted, pores at middle with slender radiating fibers; seed irregular, albumen plane.

Colombia: Province Nariño; Altaquer, alt. 3500 feet, November 10, 1946, *M. B. & R. Foster 2117* (BH. type, A. isotype).

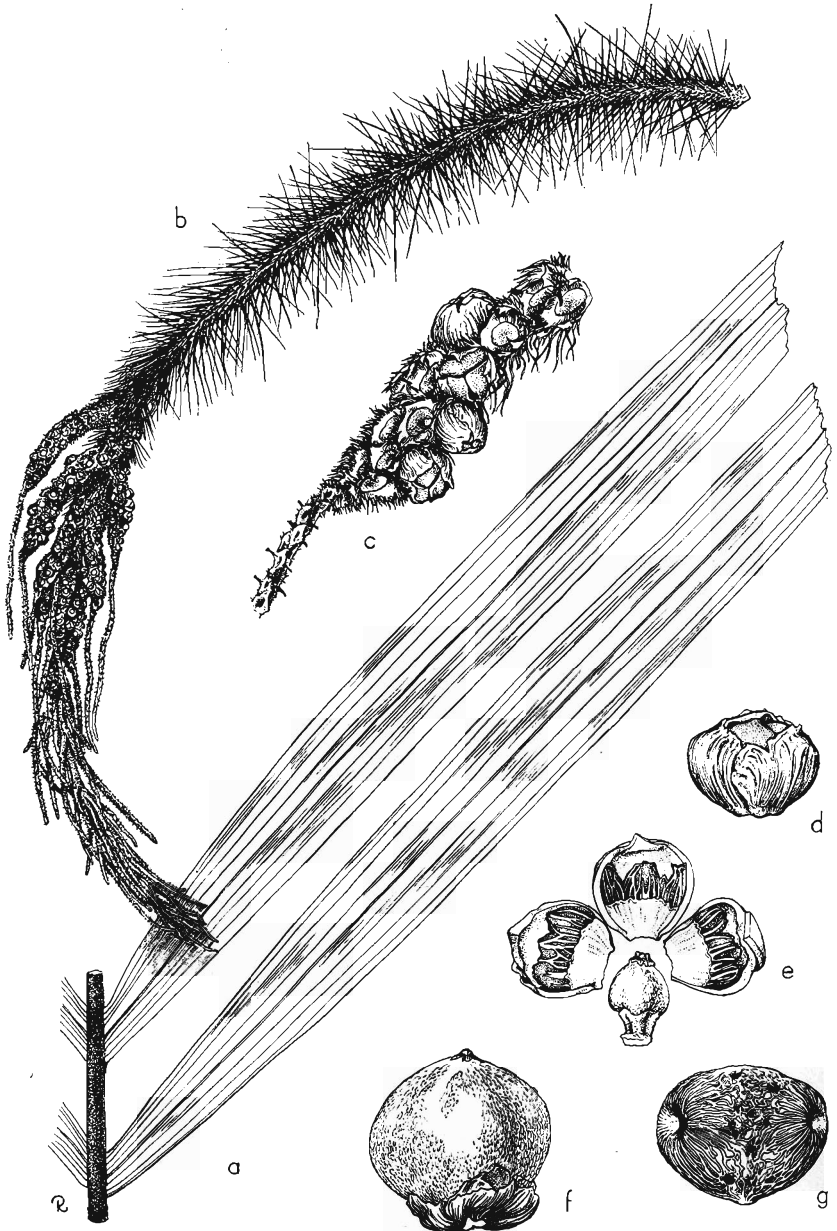
The relationship of this species is not readily determined but in the large size, large pilose pinnæ and unusual spadix with pubescent spines it is distinct from any species heretofore described.

† *Aiphanes gelatinosa*, spec. nov. Subgen. *Brachyanthera*. Fig. 93.

Coloniata; caules armati, alti et graciles: folia regulariter pinnata; rachis inermis; pinnæ oppositæ utrinque 15 vel plures uninervatæ terminalibus latioribus exceptis fere lineares, 50-60 cm. longæ, 3.5-5.5 cm. latæ, supra glabræ, subtus dense minuteque albo-granulatæ nervo medio et margine dense breviterque aculeati: spadix pendulosus, simpliciter ramosus; pedunculus ca. 1 m. longus, dense fusco-villosus et spinis ad 9 cm. longis armatus; rachillæ ca. 30 infimis applanatis et subfasciatis ad 25 cm. longis, 1.5 cm. latis, infra flores masculi et feminei glomerati supra flores masculi gerentibus, supremis tenuibus principaliter staminatis; flores masculi delapsi; flores feminei densi profunde immersi sepalis et petalis subæqualibus 6-7 mm. altis; cupula staminodiorum urceolata, truncata: fructus depresso-globosus, 16 mm. diam. 14 mm. altus; endocarpium foveolatum foraminibus vix super medium insertis fibris tenuibus tectis.

Colonial; stems tall and slender, ringed with continuous 45° spiral of spines that point downward: leaves regularly pinnate, the rachis unarmed, hirsutulous or glabrate; pinnæ opposite, 3-4 cm. apart, 15 or more on each side, the terminal broad, several-nerved, remainder 1-nerved with numerous secondary nerves, nearly linear in outline, 50-60 or more cm. long, 3.5-5.5 cm. wide, obliquely truncate, erose-dentate and scarcely produced at apex, glabrous above, densely and minutely white granulate below, the prominent midnerve and upper margin densely short aculeate below, secondary nerves ca. 10 to a side, glabrous or sparsely aculeate: spadix pendulous, simply branched; spathes unknown; peduncle ca. 1 m. long, 1.5 cm. thick, densely fuscous-villous and armed with crimped, angled, deciduous-villous shining brown spines to 9 cm. long; rachis 25 cm. long, densely pilose and aculeate; rachillæ ca. 30, the lower 10-12 applanate and subfasciate, densely pilose and aculeate at base, to 25 cm. long, 1.5

cm. thick with glomerules of one pistillate and two staminate flowers for half their length and staminate above, the upper 18-20 primarily staminate with few or no pistillate fls.: staminate flowers lacking: pistillate fls. deeply sunken and crowded with 1-2 staminate acolytes; sepals 6 mm.



93. AIPHANES GELATINOSA. a, pinnae $\times \frac{1}{4}$; b, spadix $\times \frac{1}{6}$; c, basal portion of rachilla $\times 1$; d, e, pistillate flower, side and expanded $\times 2$; f, fruit $\times 1\frac{1}{2}$; g, endocarp $\times 1\frac{1}{2}$.

high; petals 7 mm. high, incurved and thickened at apex; staminodial cupule urceolate, truncate, obscurely separated from petals: fruit depressed-globose and short-rostrate, brown and green, ca. 17 mm. diameter, 15 mm. high; exocarp smooth drying roughened; mesocarp thin with few fibers; endocarp depressed-globose, 16 mm. wide, 14 mm. high, pale brown, prominently pitted, pores about median with flat pale radiating fibers.

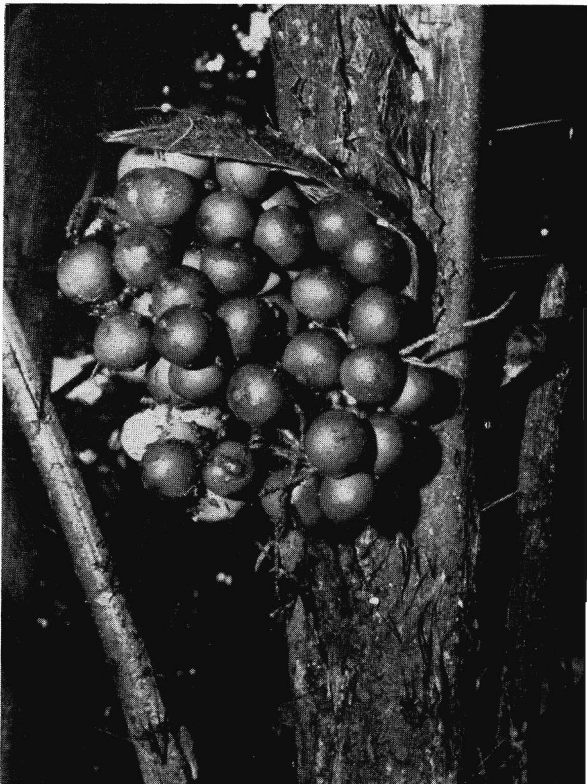
Colombia: Nariño; beyond Junin, alt. 2000 ft., November 14, 1946, *M. B. & R. Foster 2164* (BH. type; *A. isotype*).

Aiphanes gelatinosa appears to be related to *A. echinocarpa*, Dugand in its long narrow pinnæ and thick lower rachillæ but is distinct in the glabrous fruit, longer and broader pinnæ, and aculeate more densely pubescent rachillæ. *A. linearis*, Burret and *A. Kalbreyeri*, Burret, also similar in shape of the pinnæ, are distinct in having aculeate or setose fruit and *A. Lindeniana*, Wendl. differs in having smaller and 4-6-grouped pinnæ along an armed rachis. *A. Schultzeana*, Burret of Ecuador has the same type of spadix but has short deltoid-cuneate pinnæ and the calyx only one-half as long as the corolla.

According to the collectors, *A. gelatinosa* has the flowers and fruit encased in jelly. Dried gelatinous masses are to be found in the flowers but the exact nature of the secretion has not been determined.

† *Bactris militaris*,
spec. nov. Subgen.
Eubactris. Figs.
88, 94, 95.

Coloniata; caules 5-20 ad 5 m. alti: folia 6-8 erecta cuneato-ob lanceolata, integra, ad 3.1 m. longa, 25.5 cm. lata rachibus armatis: spadix ad 48.5 cm. longus; spathæ duæ, exteriore inermi interiore aculeis ad 4 mm. longis armata; flores masculi 4 mm. longi, staminibus 6; flores feminei 4 mm. longi staminodia carentes: fructus turbinatus, 15-17 mm. altus.



94. *BACTRIS MILITARIS*, fruiting spadix. Photograph by Paul Allen.