



16. A leaf of *Itaya amicorum* removed from plant press for photography after folding (Moore, Salazar & Smith 8447).

composing the *Chelyocarpus* alliance. Habit, leaf, inflorescence, flowers, and fruit have been illustrated photographically by Allen (1953) and Bartlett (1935). The root-spines on the trunk are unique among palms and the androecium is distinctive. A possibly specialized mode of pollination is suggested by the arrangement of anthers at anthesis. In general, *Cryosophila* seems to be more advanced than *Chelyocarpus*, less so than *Itaya*.

Itaya H. E. Moore, *gen. nov.*

Palma solitaria hermaphrodita foliis induplicatis flabelliformibus ad 3/4 bipartitis lateraliter in 4–7 segmenta elongato-cuneata partitis. Inflorescentiae interfoliatae bracteis sterilibus 5 ramis 6–7. Flores bisexuales sepalis 3 et petalis 3 ad medium connatis, staminibus 18–24, carpello 1. Fructus stigmatibus terminalibus, seminis endospermio homoganeo embryo prope basin sito.

Solitary, unarmed, hermaphroditic palms of moderate size, the trunks with smooth cortex (drying roughened), naked except for fibrous residual sheaths below the crown.

Leaves numerous in a spreading crown, induplicately palmate, flabelliform; sheaths short, split opposite the petiole



17. An inflorescence of *Itaya amicorum*. Note split petiole base immediately at left of tape measure and bracts of another inflorescence at left. The pinnate leaf in the background is from a *Scheelea* (Moore, Salazar & Gutiérrez 9509).

and persisting as fibrous margins on the bases of the petioles and at length fraying into slender elongate fibers at the apex; petioles elongate, unarmed, the bases prominently split, more or less long-persistent in a latticework effect below the crown, rounded below and channelled above, basally becoming bi-convex and rhomboid in section distally with obtuse margins, terminating adaxially in a small, deltoid, elevated hastula basally plicately grooved, and abaxially in a narrow deltoid margin; rachis not developed; blade flat, thin, three-fourths orbicular in outline, the segments circumscribing an arc of about 270°, divided about three-fourths to the base at the middle, each half again deeply divided into several (4–7) elongate-cuneate, 4–7-ribbed segments, these very shallowly divided apically into briefly bifid 1-ribbed segments.

Inflorescences several, interfoliar, elongate, arcuate; peduncle terete, bearing a bicarinate abaxially split prophyll and ca. 5 chartaceous, persistent, and at length marcescent sterile bracts with tubular bases and inflated acute apices split on one side; primary branches

6-7, each subtended by a persistent and at length marcescent fertile bract similar to the sterile bracts but progressively smaller and the uppermost scarcely tubular at the base, branches more or less flattened, adnate to the rachis often nearly to the succeeding bract, the lower branches again twice- to once-branched, the upper ones once-branched into slender slightly sinuous rachillae, each rachilla subtended by a linear acute bract.

Flowers perfect, borne singly in a spiral along the rachillae, each on a very short pedicel subtended by a small acute bract; sepals 3, connate in an acutely 3-lobed cupular calyx; petals 3, connate about half their length in a 3-lobed corolla, the lobes rounded and erect at anthesis, probably valvate in bud, stamens 18-24, one or two opposite each sepal, remainder opposite petals, filaments connate basally in a fleshy tube less than half their length, slightly adnate to corolla basally, fleshy and more or less subulate above, anthers oblong in outline, dorsifixed at the middle, versatile, laterally dehiscent by longitudinal slits, exerted at anthesis, bifid at apex and base, carpel 1, excentrically ovoid, narrowed to a slender curved style and oblique papillose stigma, ovule hemianatropous, attached adaxially at the base, the short funicle bearing a prominent oblique aril.

Fruit oblong-ovoid or subglobose with excentrically apical stigmatic residue; epicarp minutely granular-roughened and irregularly beset with minute perforations; exocarp ca. 0.5 mm. thick with sclerosomes; mesocarp ca. 1 mm. thick, white, dry, with anastomosing fibers; endocarp not discrete: seed oblong-ovoid; hilum ellipsoid, subbasal, raphe-branches ascending-spreading; endosperm homogeneous; embryo excentrically basal; germination not known; seedling with undivided, elliptic eophylls.

Type: *Itaya amicorum* H. E. Moore.

Distribution: Peru, in seasonal rain-forest at low elevations.

Chromosome complement: unknown.

Anatomical features:

Central vascular bundles of the petiole with two phloem strands; late metaxylem elements with simple perforation plates and often a characteristic ligule (Larry Klotz, personal communication).

Foliar and floral anatomy—see Uhl, 1972a & b.

Itaya amicorum* H. E. Moore, *sp. nov.
(Fig. 13A, 15-17).

Caulis ad 5 m. altus foliis 12-20 ad 1.25 m. longis 2 m. latis. Inflorescentia ad 1.25 m. longa. Flores 3 mm. alti. Fructus 2.4 cm. longus.

Trunk to 5 m. high, 9 cm. in diam., gray.

Leaves ca. 12-20, spreading from ascending petioles; sheath ca. 5 dm. long, densely light-brown floccose-tomentose; petiole ca. 2.6 m. long above sheath, brown-furfuraceous basally, minutely deciduous-floccose distally, 1.3-1.4 cm. wide, 7 mm. thick at apex; hastula ca. 1 cm. high, 1.5 cm. wide; blades to 1.25 m. long at middle, 2 m. wide, segments 4-7 on each side, to 1.25 m. long, 9-20 cm. wide at apex, again divided 1-7 cm. deep into segments 0.5-3 cm. wide and bifid to 3-10 mm., upper surface glossy when dry with numerous prominent cross-veinlets, lower surface densely appressed white-tomentose, the principal nerves conspicuously elevated, tomentose or glabrescent, secondary nerves few, not elevated, cross-veinlets evident.

Inflorescence to 1.25 m. long or more, creamy white with brownish bracts at anthesis; peduncle to 2.3 cm. wide near base; prophyll (on a smaller inflorescence) ca. 14 cm. or more long, 2.5 cm. wide, peduncular bracts to ca. 6 dm.