

basal. Flower-buds compare closely in size and shape. The leaf of the present material, however, is wholly different, being much more like that of *H. Lehmannii*, Burret, while that described by Wendland is essentially the leaf of *H. elegans*, Mart. New collections from the type area are needed to clarify the species and ascertain whether Wendland had leaf and spadix from the same plant.

Hyospathe pallida is closely allied to *H. gracilis*, Wendl., from which it differs in the larger spadix and interposed 2-3-nerved pinnæ, and to *H. Lehmannii* from which it differs in the short peduncle and numerous spadix branches with yellow not deep red buds.

† *Synechanthus mexicanus*, Bailey in herb., spec. nov. Fig. 85.

Planta acaulis: folia interrupte pinnata, ca. 2 m. longa; pinnæ utrinsecus 10, inferne alternæ, superne in jugis suboppositis dispositæ, linearilanceolatae, 38-44.5 cm. longæ, 2-3 cm. latæ, nervis primariis singulis præter unum jugum terminale latius 6-nervatum: spadix longipedunculatus, 20-25-ramosus; spathis 5, tubulosis, rachillis (5)-14-26 cm. longis, rachillis infimis 1-2-furcatis, rachillis supremis simplicibus: flores ca. 1 mm. alti, staminati depressi et angulosi, pistillati ovoidei: fructus globosus vel depresso globosus, 12 mm. crassus, aurantiacus, in siccatione nigrescens, albumine plano.

Acaulescent: leaves interruptedly pinnate, about 2 m. long (fide Hernandez & Sharp); petiole and sheath glabrous, finely striate; rachis 78 cm. long, glabrous, greenish-brown; pinnæ glabrous, gray-green and dull above, darker with yellowish nerves below, 10 on each side, the lower alternate at intervals of 9-10 cm., the upper in subopposite pairs at intervals of 5.5-7 cm., linear-lanceolate, falcately tapered on the lower margin to a slender apex, 38-44.5 cm. long, 2-3 cm. wide at the middle with 1 primary nerve and 2 secondary nerves on each side, the terminal pair 6-nerved, 13.5-14.5 cm. along the rachis, about 6.5 cm. wide at apex of rachis, 43-45 cm. long on midvein, 35-38 cm. long on the straight upper margin, falcately tapered on the lower margin to a short-acuminate tip: spadix 20-25-branched; peduncle to 120 cm. long, 1 cm. wide and somewhat flattened at the base, 5 mm. wide and nearly terete at apex; spathes 5, tubular, the outer short, the inner 25-60 cm. long and closely investing the peduncle; rachis 14.5-25.5 cm. long; rachillæ ascending, slender, flexuous, spinose-tipped, minutely granular, (5)-14-26 cm. long, the lower 1-2-furcate, the upper simple: flowers 5-9 in distichous acervuli, conspicuously dark-nerved, the lowermost pistillate, the remainder staminate; pistillate flowers ovoid in bud, calyx 0.4-0.6 mm. high, cupular, 3-lobed, the lobes more or less erose, petals imbricate below, valvate at the apex, broadly ovate, 0.8-1 mm. high and about as wide, staminodia absent, pistil ovoid in general outline, about 0.6 mm. high, 3-angled at the base with small protuberances, stigmas sessile, terminal; staminate flowers depressed and angled in bud, sepals lanceolate, 0.6-0.8 mm. high, connate basally in a low ring, petals valvate, broadly ovate, 1-1.2 mm. long and about as wide, stamens 6, about two-thirds as long as the petals, pistillodium minute, 3-lobed:



85. *SYNECHANTHUS MEXICANUS*. Leaf diagram and spadix $\times 1/6$; terminus of leaf $\times 1/8$; fruit and seed $\times 1 1/2$; acervulus $\times 7$; floral details (staminate above, pistillate below) $\times 10$.

fruit globose or depressed-globose, about 12 mm. diameter, orange at maturity (fide Hernandez & Sharp), blackish and pebbled when dry, stigmatic scar lateral; endocarp thin, gray-brown, openly channelled; endosperm homogeneous.

Mexico, Oaxaca, deep shade, frequent from 1000-1250 m., Finca "La Gloria" (on Rio Negro watershed) back over the sierra to Rio Grande (north of Niltepec), April 3, 1946, E. Hernandez Xolocotzi & A. J. Sharp X-1287.

First representative of the genus known from Mexico, *Synechanthus mexicanus* is similar to *S. fibrosus*, Wendl., of Costa Rica and Guatemala but differs in acaulescent habit, globose not elliptic fruit and in having the upper pinnæ in several groups of two rather than in two groups of several or in uninterrupted arrangement along the rachis.

The relationship to *S. fibrosus* is obviously close and the two species are readily separated from others by the furcate lower rachillæ. Wendl. described the genus as having ruminant endosperm, and listed *S. fibrosus* and *S. Warscewiczianus* as the original species. Hooker (Bot. Mag. t. 6572, 1881), however, illustrated and described *S. fibrosus* from a living plant at Kew sent from Hanover by Wendl. Here the fruit is said to have equable albumen. Mature fruit for further study has not been available but if such is the case these species would appear to form a natural subgenus further distinguished by homogeneous endosperm.

† *Synechanthus panamensis*, H. E. Moore, spec. nov. Fig. 86.

Arbor gracilis ad 6 m. alta: folia regulariter pinnata; pinnæ glabræ, lineares vel linearilanceolatæ apicibus breviter caudatis et nonnihil falcatæ, 21-35 cm. longæ, 0.8-4.2 cm. latæ, nervis primariis singulis vel interdum binis: spadix simpliciter ca. 50-ramosus, pedunculo 50 cm. longo, spathis 6, exterioribus ovatis, interioribus tubulosis, rachi 18 cm. longa, rachillis simplicibus, 19-33 cm. longis: flores pistillati 1.6-1.8 mm. alti, ovoidei: fructus obpyriformis, 10-13 mm. longus, apice 10 mm. latus, luteus, in siccatione nigrescens, albumine ruminato.

Caulescent, to 6 m. high (fide Allen): leaves regularly pinnate, the entire blade not seen, received in two fragments; rachis glabrous, green, those portions seen totalling 57.5 cm. long with 17-20 pinnæ on each side; pinnæ glabrous, dull semi-iridescent green when dry, linear to linear-lanceolate, short-caudate and slightly falcate to somewhat sigmoid, those seen 21-35 cm. long, 0.8-2.5 or rarely 4.2 cm. wide with 1 or rarely 2 primary nerves and 2 secondary nerves on each side: spadix about 50-branched; peduncle 50 cm. long, 1.5 cm. diameter at base, 7 mm. diameter at apex; spathes 6, thin, papery, fibrous and shredded in age, the outer short, ovate, the inner tubular, somewhat shorter than and investing the peduncle; rachis glabrous, 18 cm. long; rachillæ simple, glabrous, ascending, spinose-tipped, 19-33 cm. long, 2-3 mm. wide at base, becoming flattened, slender and flexuous above: flowers 7-9 in distichous acervuli, the lower-