

side, 16-17 mm. long and 10 mm. thick when fresh, drying to 13 or 14 mm. long and about 9 mm. thick, light dull yellow or greenish-yellow, the outside pulp scant, apex with a very short oblique point, cupule very small with sharp petal-lobes, embryo about midway up the back and opposite the small podium and micropyle.

One conspicuous tree planted on Pasco Juárez, lado oriente, city of Oaxaca, Mexico, *Bailey 533* (type), origin of tree unknown. Limestone cliffs above Trece Aguas, Alta Verapaz, Guatemala, altitude 3,000 feet, *Cook & Doyle no. 3* in National Herbarium, Washington, collected 1914. The Oaxaca tree was brought to my attention in 1938 by photographs and specimens sent by Professor Conzatti. I found the tree in full fruit in March, 1940, and the photographs herewith (Figs. 96-98) were made by me then. It is a prominent palm in the park.

† 6. *Brahea bella*, spec. nov. Figs. 92D, 93F, 94C, 99, 100.

Parva erecta palma, 4-10 m. alta; truncus rectus, 20-25 cm. crassus basi, annulatus: folia lucido-virens supra et subter, non glauca; lamina 150 cm. longa et lata, profunde divisa in longa et angustissima segmenta 2 cm. lata basi; filamenta brevissima, inconspicua; petiolus moderate longus, non dentatus, vel tantum aliquid irregularis in marginibus; hastula brevi-conica, lato margine: spadix brevior quam folia, rachillæ graciles, 2-8 cm. longæ, 1-2 mm. crassæ, albo-tomentoso-pubescentes, compacte floriferæ; floris gemmæ glabræ, 1-2 mm. longæ, obtusæ; flores 3-3.5 mm. alti anthesi, petala brevi-acuta: fructus albo-tomentosus cum juvenis sed serius pæne vel admodum glaber, cum maturus lato-oblongus, 12-13 mm. longus, 10-11 mm. latus, satis viridis vel rufescens, minor cum siccus, valde curvatus in dorso, brevi-acutus apex obliquus.

Erect tree 4-10 m. tall; bole straight and post-like, not oblique at base, 20-25 cm. thick near ground, nearly bare and no shag below the coma or crown, rather closely and not deeply ringed, with a few fragments of petiole fibers persisting now and then: leaves very bright green on both sides, not glaucous or bluish, glabrous, more or less glossy and shining in the sun, limp and at length hanging and with no attitude of stiffness or rigidity, tending to break over at the margin of the palman and giving them something of the look of a *Washingtonia*; leaf-blade 1.5 m. more or less long and broad, deeply divided into 50 and more segments 2 cm. broad toward base and split into two parts that extend to long and very narrow slender ends, strongly parallel-veined and somewhat cross-hatched, filaments very short and not conspicuous; petiole plano-convex, striate lengthwise, margins mostly unarmed or only roughish except toward base where short teeth may be present, hastula short-conic and usually bordered with a broken membrane: spadix shorter than leaves, the many ultimate branchlets or rachillæ 2-8 cm. and only 1-2 mm. thick, white-tomentose-pubescent, closely flowered; flower-buds glabrous, somewhat immersed below the tomentum, 1-2 mm. high, obtuse, the petals imbricate; flowers very small, about 3-3.5 mm. high at expansion, the short-acute petals somewhat exceeding the 6 stamens, filaments much expanded at base and forming a cup: fruit at first white-tomentose but becoming nearly or quite

glabrous, at maturity broad-oblong, 12-13 mm. long, 10-11 mm. broad, strongly curved on the back and short apical point oblique, flattish and nearly straight on ventral side, dull green to reddish, cupule very small with pointed petals; intrusion a narrow filled central channel extending nearly the length of the albumen, the podium also narrow and expanding lengthwise at the surface of the seed.

Northern Coahuila, Mexico: Municipio de Múzquiz, on plains and mountains at altitude of 2,000-3,000 feet, in clefts and seams of limerock and among separated boulders of it, growing as single trees in many sizes but often covering the valley floor as if in forests and abundant on cliffs and broken ranges at higher altitudes. Seen by me first on Rancho San Geronimo (Mangum) about fifty miles northwest from postoffice at Múzquiz near upper waters of Rio La Babia, *Bailey 717* (type) and *718*, again farther on at Rancho Agua Dulce (Persons), *Bailey 719*. Pieces of inflorescence collected at Mazatlan in Sinaloa, Mexico, *Jesús G. Ortega 4078, 5630* apparently represent this species. *Purpus 5559a* from San Luis Potosi may be this species, although the strongly angled immature fruits are peculiar.



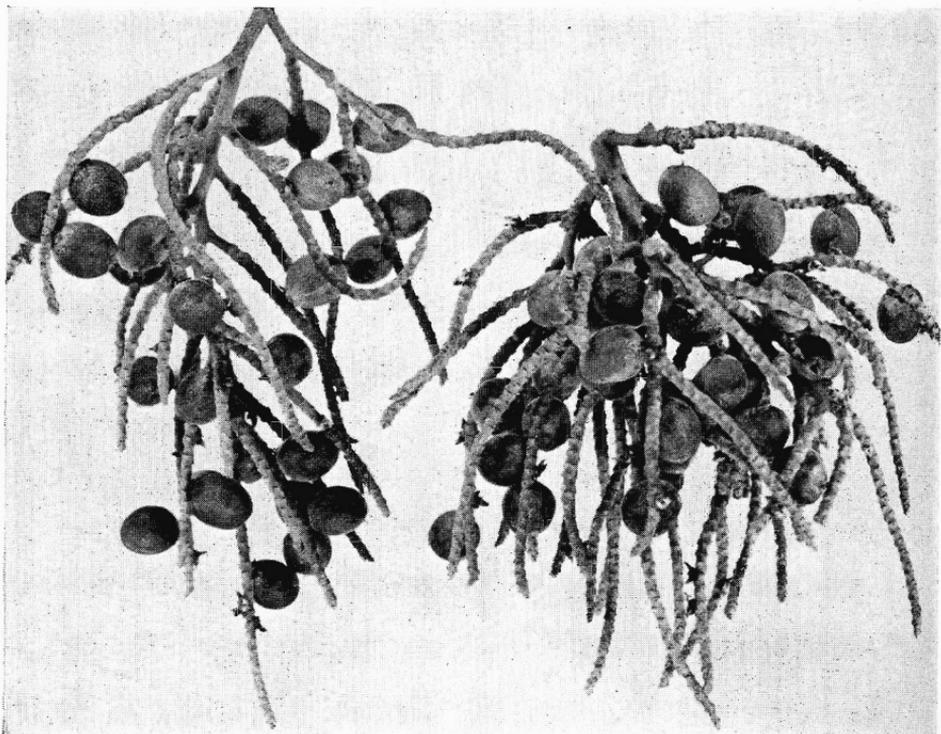
99. TREES OF BRAHEA BELLA. State of Coahuila, northern Mexico.

*Note on an Erythea*

Sereno Watson's genus *Erythea* was separated from *Brahea*: cf. *Gent. Herb.* iv, fasc. iii. The two genera are very close together, yet I think they are distinct and they appear to have different horticultural possibilities. The published marks of separation are not satisfactory, and I now state the main contrasts as I see them:

*Erythea*, 1880, differs from *Brahea*, 1838, in the less closely parallel-plicate folds on palman of the leaf, less tomentose rachillæ, flowers larger and not sunken in the axis or imbedded in tomentum, carpels not united at base, fruits larger rounder and plum-like, single rather than sometimes twin, lacking the very short sharp oblique beak-like point of *Brahea*, podium extending inward in a rounded knob nearly or quite to the center of the albumen rather than lying also longitudinally along one side, sarcocarp much more pronounced, embryo near base rather than usually dorsal.

In my *Erythea* paper in 1937 I adopted "with hesitation" the binomial *E. Roezlii*, Becc. for a palm I had collected in canyons in Sonora, the name having been taken over from *Brahea Roezlii*, Linden. I am now convinced that the Roezl palm was one of the several forms of *Erythea armata*, and I bestow "a new name as I had at first intended." In making this change I



100. FRUITS OF *BRAHEA BELLA*, about one-half natural size. Coahuila.

am supported by evidences of my own and also by the opinion of the late J. Harrison Wright of Riverside, California, whose knowledge of palms was critical and exact, and who had maintained correspondence (in French) with Beccari.

† **Erythea clara**, spec. nov.

*E. Roezlii*, Bailey, Gent. Herb. iv, 114, figs. 69, 70, 71 (1937),  
not Becc.

Palma glauco-cærulea speciosa, coma condensa; truncus valde annulatus; foliorum segmenta 80-100 vel plura, perlonga, plana, 1-3 cm. lata; lamina vix cerifera; petioli 3-4 cm. lati, glabri, marginalibus dentibus 8-20 mm. longis, separatis; spadix ascendens, denique arcuata, 2-3 vel 4 cm. longa; thyrsi breves, 40-50 cm. vel minus longi; rachillæ validæ, 4-8 cm. longæ, divaricatæ; laminæ spathellarum 4-6 cm. longæ; flores parvi aggregatique, bractæ minutæ non aculeatæ; fructus compressus, circularis, 18-20 mm. diam. in latitudinem et in longitudinem.

This slender palm from the hidden Nacapule Canyon on the western side of the State of Sonora, many kilometers away from Guaymas, and from other areas in that region (perhaps native in Baja California), is sufficiently illustrated and also accounted for in my *Erythea* fascicle, and further comment is unnecessary. I have not seen it in cultivation.