

half to three feet long, pale yellow-green, an inch and a half wide at the base, coated at first like the young leaves with silvery-white deciduous tomentum toward the orange colored apex. Spadix from eighteen to twenty-four inches in length with a flattened peduncle, slender, much flattened, primary branches from eight to ten inches long and light orange-colored like the slender terete secondary branches; spathes thin, fibrous, brittle, pale reddish-brown and coated toward the ends with pale pubescence.

Dry coral ridges from the shores of Bay Biscayne, where it is rare, along many of the southern keys to the Marquesas group, west of Key West. Discovered by A. H. Curtiss in 1880. Very similar to *Thrinax argentea* R. & S., the seeds differing, however, from those of that species as named in the herbarium of the Royal Gardens, Kew, in their brown, not mahogany-red, color and larger size.

**Coccothrinax Garberi**, nom. nov.

*Thrinax Garberi* Chapman, Bot. Gazette 3:12. 1878; Flora S. States Suppl. [ed. 2] 651. Sargent, Silva 10:50.

*Thrinax argentea* var. *Garberi* Chapman, Flora S. States [ed. 3] 462. 1897.

A stemless plant similar to the last in the structure of its flowers-and fruit and in the texture and color of the leaves, but smaller in all its parts, the leaves being only about ten or twelve inches in diameter. Found only on dry coral ridges near the shores of Bay Biscayne, and possibly only a depauperate form of the last.

**Serenoa arborescens**, n. sp.—Flowers minute, one twentieth of an inch long or less, perfect, sessile, in from one to three-flowered clusters in the axils of ovate acute chestnut-brown bracts, bibracteolate. Calyx truncate at the base, three-lobed, the lobes oblong, rounded and more or less laciniate on the margins, light chestnut-brown, thickened and persistent under the fruit. Corolla yellow-green, three-parted to the base, the divisions valvate in æstivation, oblong-ovate, thick, concave,

acute and much thickened at the apex, grooved on the inner surface with two or three deep depressions, deciduous. Stamens six, included; filaments nearly triangular, united below and adnate to the short tube of the corolla; anthers short-oblong, attached on the back below the middle, introrse, two-celled, the cells opening laterally. Ovary oblong-obovate, of three carpels free below, united above into a slender elongated style; stigma minute, terminal on the fruit; ovule solitary, erect from the bottom of the cell, anatropous. Fruit drupaceous, one-seeded, globose, one third of an inch in diameter, black and lustrous, usually bearing at the base the minute abortive carpels; exocarp thin and fleshy; mesocarp thin, fibrous, orange colored, strong-smelling, closely investing the pale brown crustaceous putamen. Seed free, subglobose, somewhat flattened below; testa hard, chestnut-brown and lustrous, lighter-colored on the ventral side with a large pale circular mark; hilum basal; raphe ventral, oblong, acute, unbranched; micropyle joined to the testa by a pale band; albumen homogenous; embryo lateral.

A tree thirty or forty feet in height with one or several stems three or four inches in diameter, clothed above for many years with the vaginas of the leaf stalks and covered below with smooth pale gray bark, and erect or often more or less inclining and occasionally semiprostrate. The leaves are terminal, semi-orbicular, truncate at the base, thin and firm, bright yellow-green on the upper surface, blue-green on the lower surface, two feet wide and long, divided nearly to the base into narrow linear-lanceolate lobes, their midribs and margins only slightly thickened and pale yellow; rachis acute, its narrow border free, thin and membranaceous; ligule thin, concave, short-pointed, furnished with a deciduous membranaceous red-brown border a quarter of an inch wide; petioles slender, flat on the upper surface, convex and stoutly ribbed on the lower surface, from eighteen to twenty-four inches long, one third of an inch wide at the apex, an inch wide at the base, armed with stout flattened orange-colored teeth; vaginas thin and firm, bright mahogany-red, very lustrous, closely infolding the stem, their fibers thin and brittle. The

spadix is interfoliar, from three to four feet long, its stem slender and flattened; branches slender, elongated, paniculate, gracefully drooping, coated with hoary tomentum, the ultimate divisions terete; bracts ovate, acute, chestnut-brown; spathes six or eight, sheathing the peduncle, thick and firm, deeply two-cleft at the apex furnished with a narrow membranaceous red-brown border.

Margins of swamps adjacent to the Chockoloskee river in southwestern Florida.

This second species of *Serenoa* differs from the type of the genus, the well-known saw palmetto of the southern states, in its arborescent habit, more elongated spadix, much smaller flowers, and smaller globose fruit and seeds, and is certainly a most interesting addition to the trees of the United States. The existence of an undescribed arborescent palm on the Chockoloskee river was known to me as long ago as 1887, when it was discovered without flowers and fruit in the Royal Palm Hummock, not far from the town of Everglade, by the late P. W. Reasoner, of Oneco, Florida; but it was not until the past season that I obtained the flowers and fruit from Mr. R. G. Corbitt, of Immockalee, Florida, who has found this palm growing abundantly in the swamps about thirty miles southeast of Lake Trafford, near the head of the Chockoloskee. In December 1898, seeds of *Serenoa arborescens* were distributed from the Arnold Arboretum as "New palm from the Florida everglades."

**Ulmus** (*MICROPTOLEA*) **serotina**, n. sp.—Arborescent. Leaves oblong to oblong-obovate, acuminate, variously oblique at the base, coarsely and doubly crenulate-serrate, membranaceous, glabrous and lustrous above, puberulous below on the prominent midribs and veins. Flowers perfect, autumnal, racemose, from buds in the axils of leaves of the year, long-pedicellate. Calyx six-parted to the base, its divisions oblong-obovate, rounded at the apex. Ovary sessile, narrowed below, hirsute. Samaras stipitate, oblong-elliptical, deeply two-parted at the apex, ciliate on the margins. Seeds obovate; raphe conspicuous. Young leaves, stipules and bracts unknown.