

clothed above with the long persistent vaginas, and long tough wiry roots covered with thick orange-brown loosely attached rind. Leaves alternate, induplicate in veneration, orbicular or truncate at the base, thick and firm, usually silvery white on the lower surface, more or less divided into two-parted obliquely folded lobes with thickened margins and midribs; rachis reduced to a narrow border with a thin usually undulate reflexed margin; ligule thick, concave, pointed, often lined while young with hoary tomentum; petioles stout, elongated, flattened, slightly rounded above and below, their margins thin and smooth, concave toward the base and gradually enlarged into vaginas of coarse netted fibers covered with thick hoary tomentum. Spadix paniculate, interfoliar, pedunculate, as long as or longer than the petioles; its primary branches short, alternate, compressed, incurved, furnished with numerous slender terete alternate flower-bearing branchlets in the axils of ovate acute scarious deciduous bracts; spathes numerous, tubular, thick and firm, coriaceous, two-cleft and more or less tomentose toward the apex.

To *Thrinax*, in addition to the three Florida species, should be referred *Thrinax parviflora* Sw., *Thrinax excelsa* Griseb., *Thrinax Morrisii* H. Wendl., *Thrinax multiflora* Mart., and *Thrinax pumilio* R. & S.

PEDICELLATAE. Flowers long-pedicellate; perianth obscurely lobed or nearly truncate; filaments subulate, hardly united at the base, much exserted; stigma oblique.

***Thrinax Floridana*, n. sp.**

Thrinax parviflora Vasey, Rep. U. S. Dept. Agric. 1875: 186 (*Cat. Forest Trees U. S.* (not Swartz) 1876.—Chapman, BOT. GAZETTE 3: 12; Flora S. States, Suppl. [ed. 2] 651, [ed. 3] 462.—Sargent, Silva 10: 51 (in part), *pl.* 510 as to the leaf.

Flowers on slender pedicels nearly an eighth of an inch long, ivory-white, very fragrant with a pungent aromatic odor. Fruit from one quarter to three eighths of an inch in diameter, somewhat depressed above and below. Seed from an eighth to

nearly a quarter of an inch in diameter, dark chestnut-brown and lustrous, penetrated nearly to the apex by the broad basal cavity.

A tree with a slightly tapering stem from twenty to thirty feet in height and from four to six inches in diameter, covered with smooth pale blue-gray rind and generally clothed to the middle and occasionally to the ground with the persistent clasping bases of the leaf-stalks. Leaves nearly orbicular, or truncate at the base, rather longer than they are broad, yellow-green and lustrous on the upper surface, silvery-white on the lower surface, divided to below the middle into numerous lobes varying from an inch to an inch and a half in width near the middle of the leaf; ligule long-pointed, bright orange color, three quarters of an inch long and broad; petioles from four feet to four feet and a half in length, pale yellow-green, three quarters of an inch wide at the orange-colored more or less tomentose apex, much thickened and tomentose and from two inches to two inches and a half wide at the base. Spadix from three feet to three feet six inches in length, its primary branches from six to eight inches long, ivory-white when the flowers open like the slender secondary branches, but turning light yellow-green before the fruit ripens and orange-brown in drying. Flowers in June and sometimes also irregularly in October or November; fruit ripening six months later.

Dry coral ridges and sandy shores from Cape Romano to Cape Sable on the mainland and from Torch Key to Long Key. Discovered by Dr. A. W. Chapman on Cape Romano in the autumn of 1875, and on Cape Sable by Dr. A. P. Garber in October 1879. This is the *Thrinax excelsa* of Florida nurserymen but not of Grisebach. Closely related probably to *Thrinax parviflora* of Swartz, which appears to be widely distributed through the West Indies and to occur on the shore of Central America, but distinct from that species, as collected by Charles Wright in Cuba (*no. 2329*) and determined by H. Wendland, in its longer and stouter fruiting pedicels, smaller fruit and deeper seminal cavity, and pronounced unlike any of the species of

Thrinax in the Herbarium of the Royal Gardens at Kew, where, through the courtesy of the director, Mr. W. T. Thiselton Dyer, my Florida material has been compared.

Seeds of *Thrinax Floridana* were distributed from the Arnold Arboretum in December 1898, as *Thrinax species no. 2*.

SESSILIFLORÆ. Flowers short-pedicellate; perianth lobes broadly ovate, acute; filaments nearly triangular, united below into a cup adnate to the perianth; stigma flat.

***Thrinax Keyensis*, n. sp.**—Flowers on low disk-like pedicels, ivory-white, faintly aromatic. Fruit from one sixteenth to nearly one quarter of an inch in diameter, with thin flesh. Seed three sixteenths of an inch in diameter, pale chestnut-brown, penetrated only to the middle by the basal cavity.

A tree with an ashy-gray stem often twenty-five feet in height and from ten to fourteen inches in diameter, raised on a base of thick matted roots two or three feet high and eighteen or twenty inches wide. Leaves nearly orbicular or truncate at the base but rather longer than broad, from three to four feet in length, divided for two thirds of their length into lobes which are often two and a half inches wide near the middle of the leaf, the lowest lobes parallel with the petiole or spreading from it at right angles, thick and firm, light yellow-green and very lustrous on the upper surface, with bright orange-colored midribs and much thickened orange-colored margins to the lobes, on the lower surface at first coated with hoary deciduous tomentum and at maturity pale blue-green and more or less covered with loosely attached silvery-white pubescence; ligule thick, pointed, an inch long and wide, lined at first with hoary tomentum; petioles stout, flattened above, obscurely ridged on the lower surface, tomentose while young, pale blue-green, from three to four feet long, an inch wide at the apex, and from three to four inches wide at the much thickened concave base, coated like the broad vaginas of coarse tough fibers with felt-like tomentum. Spadix six feet long, stout, spreading, gracefully incurved, its primary branches much compressed, from three to four inches in