

# *Sabal miamiensis*: Not Extinct in the Wild

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**A recent survey by Montgomery Botanical Center confirmed a thriving population of *Sabal miamiensis* Zona in the wild.**

*Sabal miamiensis* is a species endemic to South Florida (Zona 1985). That original description (ibid.) highlighted its strong imperilment, stating that it was in danger of becoming extinct. The species was then presumed to be extinct in the wild due to the rapid urbanization of Southeastern Florida (Zona 1990, 1997). Subsequent searches did not find any wild plants, and the species was then formally listed as Extinct in the Wild (Walter & Gillett 1998) and thus only existing in ex situ conservation and the ornamental trade (Griffith et al. 2021).

At a field site in Miami-Dade County, we identified at least thirty healthy individuals

matching the description as established by Zona (1985). Given the sensitive nature of the site, the precise location will not be disclosed. Many individuals were observed producing healthy seeds and varying levels of developmental plant growth (Fig. 1). The population is located on what is now a scrubby hardwood hammock, which contains surface-level oolite limestone and is in an elevated and restricted access area, which corresponds to the range of *S. miamiensis*, and the habitat type originally noted by Zona (1985, 1990). Besides geography and habitat, diagnostic characters of *Sabal miamiensis* center on infructescence structure and fruit and seed size (Zona 1985, Zona & Judd 1986). Infructescences observed were branched to three orders (Fig. 2). Average fruit diameter was 1.6 cm (Fig. 3), and seed diameter was 1.3 cm, matching or exceeding Zona's (1985) protologue, and definitely outside the range of *S. etonia* Swingle ex Nash (0.9–1.54cm (Zona 1990)) or *S. palmetto* (Walter) Lodd. ex Schult. & Schult.f. (0.81–1.39cm (Zona 1990, Zona & Judd 1986)). This is the first confirmed sighting of *Sabal miamiensis* in the wild in several decades.

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1. Profile view of *Sabal miamiensis* as found in the wild.

After an extensive literature review and consultation with nomenclature specialists, we have determined that there has been no formal synonymizing of *Sabal etonia* with *Sabal*

*miamiensis*. Furthermore, we acknowledge the previously established habitat, geographic and morphologic data that distinguish it (Zona 1985, 1990). These data, in addition to

2. Close-up of infructescence showing third-order branching.





3. Close-up of fruit showing size, 1.6 cm diameter. Caliper gradations have been overlaid in red text for legibility. Instrument is to read from the yellow line.

unpublished molecular data (Grinage, in prep.), floral volatile chemistry data (Maia, in prep.), and anatomical data (Younis, in prep.) support species status for *S. miamiensis*, and thus we recognize *S. miamiensis* to be a true species.

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#### LITERATURE CITED

GRIFFITH, M.P., A. MEYER AND A. GRINAGE. 2021. Global *ex situ* conservation of palms: Living treasures for research and education. *Frontiers in Forests and Global Change* 4: 711414.

WALTER, K.S. AND H.J. GILLET. 1998. 1997 IUCN Red List of Threatened Plants. IUCN.

ZONA, S. 1985. A new species of *Sabal* (Palmae) from Florida. *Brittonia* 37: 366–368.

ZONA, S. 1990. A monograph of *Sabal* (Arecaceae: Coryphoideae). *Aliso: A Journal of Systematic and Floristic Botany* 12: 583–666.

ZONA, S. 1997. The genera of Palmae (Arecaceae) in the Southeastern United States. *Harvard Papers in Botany* 2: 77–107.

ZONA, S. AND W.S. JUDD. 1986. *Sabal etonia* (Palmae): Systematics, distribution, ecology, and comparisons to other Florida scrub endemics. *SIDA, Contributions to Botany*: 11: 417–427.