

Hyophorbe lagenicaulis, Bottle Palm¹

Melissa H. Friedman, Michael G. Andreu, Heather V. Quintana, and Mary McKenzie²

Family

Areaceae, palm family.

Genus

Hyophorbe is a combination of two Greek words: *hyo* meaning “pig, hog” and *phorb* meaning “feed, fodder.” The name of the genus is thought to come from the use of its fruits for pig fodder.

Species

The species name *lagenicaulis* also is a combination of two Greek words: *lagen* meaning “a flask” and *caulis* meaning “a stem,” in reference to the bottle-shaped trunk of this palm.

Common Name

Bottle Palm

The common name of this palm comes from the shape of its stem, which resembles the shape of a bottle; bulbous at its base and slender near the top.

Description

This palm is endemic to the Mascarene Islands, which occur east of Madagascar in the Indian Ocean. It naturally inhabits well-drained sandy soils of upland forests and coastal savannas. In America, it can grow in climates found in south Florida, extreme southern California, and the Hawaiian Islands. This tree is slow growing but can reach heights that range from 12 to 20 feet. It grows best in full

sunlight but can tolerate moderate shade. The pinnately compound leaves or fronds can grow to 12 feet long and are attached to a 10-inch petiole or stem. Its slender, lance-shaped leaflets are dark green, approximately 2 feet long, and grow opposite from one another to form a “V” shape on the rachis or middle of the frond. The trunk is smooth, light gray to almost white, and when young has a noticeably swollen base that becomes less pronounced and elongated as it matures. On top of the trunk sits a bright green crownshaft (from which the fronds emerge) that has a smooth, waxy surface and can reach 2 to 3 feet in height. Heavily branched flower inflorescences encircle the trunk just below the crownshaft and can reach lengths of 3 feet. Male and female flowers occur on the same inflorescence and are white or cream colored. Fruits are one inch in diameter and turn from green to black as they ripen.



Figure 1. Young specimens of *Hyophorbe lagenicaulis* at an elementary school in Taiwan, already starting to show the characteristic bottle shape.

Credits: plj, johnny, CC BY-NC-SA 2.0

1. This document is FOR 245, one of a series of the School of Forest, Fisheries, and Geomatics Sciences, UF/IFAS Extension. Original publication date May 2010. Reviewed February 2022. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
2. Melissa H. Friedman, former biological scientist; Michael G. Andreu, associate professor of forest systems; Heather V. Quintana, former research assistant; and Mary McKenzie, former research assistant; School of Forest, Fisheries, and Geomatics Sciences; UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Andra Johnson, dean for UF/IFAS Extension.



Figure 2. Mature specimens of *Hyophorbe lagenicaulis* in a botanical garden in India, showing the range in bottle shapes.
Credits: Shubhada Nikharge, CC BY-NC-SA 2.0



Figure 3. Inflorescences on the trunk of *Hyophorbe lagenicaulis*.
Credits: pljohnny, CC BY-NC-SA 2.0

Applications

Horticultural

The shape of this palm's trunk, with its bulbous base that tapers to a slender cylinder, is in itself eye-catching. It can be planted singly to highlight its physical characteristics or in groups of three or more. It grows best in hot conditions but requires additional irrigation during drier times, and freezing temperatures will most likely kill this palm. In Florida, it is recommended that additional potassium be applied for optimal growth and health. Bottle palm can do well in indoor situations as long as it has ample light and room to grow. Fortunately, this palm is cultivated and planted worldwide; it is critically endangered almost to the point of extinction in its natural range.

References

Borrer, D. J. 1988. *Dictionary of root words and combining forms* (2nd ed.). Mountain View, CA: Mayfield Publishing Company.

Floridata.com. 1999. *Hyophorbe lagenicaulis*, Retrieved from http://www.floridata.com/ref/H/hyop_lag.cfm

Meerow, A. W. 2004. *Betrock's guide to landscape palms* (9th ed.). Hollywood, FL: Betrock Information Systems.

Riffle, R. L. and P. Craft. 2003. *An encyclopedia of cultivated palms*. Portland, OR: Timber Press, Inc.