Royal palm sp

Roystonea regia

Code: XIM-T-019 **Location:** XIM University Campus **Local / Vernacular name:** ରାଜ ତାଳ

Description

XIM University campus biodiversity register (2026–27). Recorded individuals: 129; abundance rank: 2.

Botanical Details

Leaf habit: Evergreen Flowers / Fruits: It produces small, creamy-white flowers arranged in large inflorescences, which are rich in nectar and attract bees and other pollinators. The palm also bears round to oval fruits, which turn dark purple or black when mature and serve as an important food source for birds and bats Native range: Cuba, Bahamas, The Cayman Islands, Southern Florida, parts of Central America.

Uses & Importance

Ecological: Its key ecological role lies in providing **food and habitat** for a wide range of fauna, including birds, bats, and insects. The palm produces fruits that serve as an important food source for frugivorous birds and bats, supporting their survival and aiding in seed dispersal, while its flowers attract insects and pollinators. The dense canopy and sturdy fronds offer shelter, nesting, and roosting sites, particularly in urban and landscaped environments where natural vegetation is limited. In addition, these palms contribute to **carbon sequestration** by absorbing atmospheric carbon dioxide during growth and storing it in their biomass, thereby helping to mitigate climate change. Through continuous CO_2 uptake and oxygen release, they function as natural urban **"air purifiers,"** improving air quality, moderating microclimates, and enhancing overall ecological health in cities and periurban areas.

Medicinal: They are traditionally used in the treatment of **diabetes**, as various parts of the plant are believed to help regulate blood glucose levels. Experimental studies have shown that an extract obtained from the fruit of *Roystonea regia*, known as **D-004**, exhibits significant pharmacological activity. In animal models, particularly in rodents, D-004 has been found to **reduce benign prostatic hyperplasia (BPH)** by inhibiting prostate enlargement and modulating inflammatory and hormonal pathways. These findings highlight the medicinal potential of *R. regia*, supporting its traditional use and indicating its promise as a natural therapeutic agent for metabolic and prostaterelated disorders, pending further clinical validation.

Cultural: The royal palm (Roystonea regia) holds notable cultural and regional importance across the tropics, especially in the Caribbean, Central America, and parts of South America, where it is native, particularly to Cuba and parts of Florida. Culturally, the royal palm is regarded as a symbol of dignity, strength, and resilience, and it is often

associated with national identity and traditional beliefs; in Cuba, for example, it is considered a sacred tree and features prominently in folklore, rituals, and rural landscapes. Regionally, it is widely planted along roadsides, in plantations, public spaces, and homesteads for shade, aesthetic value, and as a landmark species.

Location

GPS: 20.15860192, 85.76535449

Directions: https://www.google.com/maps/dir/?api=1&travelmode=walking&destination=20.15860192%2C85.76535449