Jamun

Syzygium cumini

Code: XIM-T-026 **Location:** XIM University Campus **Local / Vernacular name:** ଜାମୁଡକାଳି

Description

XIM University campus biodiversity register (2026–27). Recorded individuals: 14; abundance rank: 13.

Botanical Details

Leaf habit: Evergreen Flowers / Fruits: Small, whitish flowers (spring); fleshy, ovoid berries that change from green to pink to purple-black when ripe (summer). Fruit is edible; pulp stains purple. Native range: Native to the Indian subcontinent (India, Nepal, Bangladesh, Sri Lanka), Southeast Asia (Malaysia, Indonesia, Philippines), and naturalized elsewhere (e.g., Hawaii).

Uses & Importance

Ecological: An **evergreen, fast-growing shade tree**, it is widely used in **agroforestry systems** due to its ability to establish quickly and provide continuous canopy cover. The tree offers **habitat and shelter** to a wide range of birds, small animals, and insects, thereby enhancing onfarm biodiversity. Its leaves serve as an important **larval host plant for butterflies**, including species such as the **Large Oakblue**, while its flowers attract bees and other **pollinators**, supporting ecological interactions and reproduction. The extensive root system helps **bind soil and prevent erosion**, particularly on slopes and degraded lands, making the species valuable for **ecological restoration and landscape stabilization**. In addition, its high **biomass production** contributes to **carbon sequestration**, helping mitigate climate change by storing atmospheric carbon. By improving soil structure, increasing organic matter, and facilitating the **reclamation of degraded and nutrient-poor soils**, the tree plays a significant role in conservation, sustainable land management, and long-term ecosystem recovery.

Medicinal: The seeds, bark, and fruits of this tree are widely recognized for their anti-diabetic and antioxidant properties and have long been used in folk and traditional medicine in India, particularly for managing diabetes, diarrhea, ulcers, and inflammatory conditions. In Ayurvedic practice, these plant parts are described as having cooling, astringent, and restorative properties, helping to regulate blood sugar levels, improve digestion, and reduce internal inflammation. Phytochemical studies have identified bioactive compounds such as flavonoids, tannins, phenolics, and triterpenoids, which contribute to strong antioxidant activity and protect tissues from oxidative stress. These traditional claims are increasingly validated by peer-reviewed scientific studies, which report protective effects against cardiometabolic disorders, including hyperglycemia, dyslipidemia, insulin resistance, and cardiovascular

complications. Additionally, experimental evidence suggests anti-ulcer, anti-inflammatory, and organ-protective effects, highlighting the plant’s therapeutic potential and reinforcing its importance as a medicinal resource in both traditional healthcare systems and modern pharmacological research.

Cultural: Regarded as sacred by Hindus and Buddhists; often planted near temples and used in religious ceremonies. Considered sacred to Krishna and contributes to cultural festivals and folklore.

Location

GPS: 20.15860192, 85.76535449

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