Iron wood

Mesua ferrea

Code: XIM-T-043 **Location:** XIM University Campus **Local / Vernacular name:** ନାଦଗଣ୍ଡର

Description

XIM University campus biodiversity register (2026–27). Recorded individuals: 1; abundance rank: 47.

Botanical Details

Leaf habit: The ironwood tree is generally evergreen to semi-evergreen in its native tropical environments. This means it retains most of its leaves throughout the year, continuously performing photosynthesis and maintaining a green canopy. In areas with distinct dry seasons or cooler climates, it may shed some leaves as an adaptation to conserve water, but it usually retains a significant portion of its foliage compared to strictly deciduous trees. Its evergreen nature ensures ongoing habitat and food resources for dependent wildlife. Flowers / Fruits: Mesua ferrea produces large, beautiful white flowers that are one of its most striking features. Each blossom has multiple long, golden stamens and a delicate fragrance that attracts pollinators like bees, butterflies, and moths. Flowering typically occurs in the dry season when the contrast of white flowers against green foliage is especially visible. After pollination, the tree forms globose woody fruits (capsules) containing seeds encased in a hard shell. These seeds are dispersed when the capsules mature and split open, contributing to natural regeneration. The impressive floral display and fruiting cycle support ecological interactions with wildlife and enhance the aesthetic value of landscapes. Native range: The ironwood tree is native to South Asia and Southeast Asia, including countries such as India, Sri Lanka, Nepal, Bhutan, Bangladesh, Myanmar, Thailand, and Malaysia. In its natural range, it is typically found in moist forests, riverine tracts, and evergreen to semi-evergreen hills. Because of its attractive form and valuable properties, it is also widely planted in parks, gardens, avenues, and campuses throughout tropical regions worldwide. Its adaptability to both wild and cultivated settings contributes to its wide distribution and ecological success

Uses & Importance

Ecological: The ironwood tree plays a significant role in tropical and subtropical forest ecosystems. Its tall, dense canopy offers shelter and nesting spaces for birds, bats, and arboreal mammals, while its branches and leaves create a microhabitat for insects and other invertebrates. The fragrant flowers are an important nectar source for bees, butterflies, and other pollinators, which in turn support broader ecological networks. The tree’s deep root system stabilizes soils, reducing erosion especially along stream banks and slopes, while fallen leaves and organic debris enrich the forest floor with nutrients. In agroforestry and urban settings, it helps maintain biodiversity and ecological balance.

Medicinal: In traditional systems like Ayurveda, Unani, and Siddha, various parts of the ironwood tree — including the bark, seeds, flowers, and leaves — are used for medicinal purposes. These plant parts contain bioactive compounds such as coumarins and xanthones, which are believed to have antiinflammatory, antioxidant, antimicrobial, and analgesic properties. Traditional preparations are used to treat conditions such as fever, ulcers, skin infections, respiratory problems like bronchitis, digestive disorders, and wounds. Although scientific research is ongoing, many traditional healers consider the tree a valuable source of herbal remedies that complement modern medicine.

Cultural: The ironwood tree holds cultural and spiritual significance in many parts of South and Southeast Asia. In countries like India, Sri Lanka, and Thailand, it is often planted near temples, schools, and sacred spaces because its majestic form and fragrant flowers are associated with purity, longevity, and reverence. The large, showy blossoms are used in religious rituals, offerings, and ceremonies, and are sometimes woven into garlands for festivals. Its strong and durable wood has historically been used for traditional crafting, building elements such as pillars and beams, and in making tools and ornamental objects that carry cultural value.

Location

GPS: 20.15860192, 85.76535449

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