Oleander

Nerium oleander

Code: XIM-T-048 **Location:** XIM University Campus **Local / Vernacular name:** କରବୀର

Description

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

Botanical Details

Leaf habit: Evergreen Flowers / Fruits: showy, funnel-shaped flowers in shades of pink, white, red, or yellow; fruit consists of long, narrow pairs of follicles that split to release numerous downy-tufted seeds. Native range: Native to a broad area stretching from the Mediterranean region through the Arabian Peninsula to the Indian subcontinent and southern China; widely cultivated in warm-temperate and tropical regions globally.

Uses & Importance

Ecological: Nerium oleander is a highly resilient, drought-tolerant shrub that plays a specialized role in stabilizing fragile ecosystems. It is frequently used for land reclamation and erosion control along highway medians, coastal dunes, and riverbanks because its extensive, fibrous root system binds the soil effectively even in poor, rocky, or saline conditions. Ecologically, it serves as a "buffer" plant; its extreme toxicity makes it unpalatable to most herbivores, allowing it to maintain green cover in overgrazed areas where other vegetation has been stripped away. While its flowers provide nectar for certain long-tongued insects, its primary ecological value lies in its ability to withstand intense heat and air pollution, making it an ideal candidate for urban greening and "green belts" designed to filter particulate matter from traffic. It also provides a safe, undisturbed nesting habitat for small birds that are protected by the plant's natural chemical defenses. Furthermore, its ability to thrive with minimal water helps conserve local groundwater while still contributing to carbon sequestration in arid urban microclimates.

Medicinal: The medicinal history of Oleander is a study in extreme caution and precision, as the entire plant contains potent cardiac glycosides such as oleandrin and neriine. In ancient Ayurvedic and Greco-Roman traditions, it was used in highly diluted, specific preparations to treat chronic skin diseases like leprosy, scabies, and stubborn ulcers. Modern pharmacology has investigated these glycosides for their potential in treating congestive heart failure, as they act similarly to digitalis by increasing the force of heart muscle contractions. However, due to its narrow therapeutic index , it is rarely used internally in contemporary medicine without extreme pharmaceutical processing. More recent research has focused on its anti-tumor properties, with standardized extracts being studied for their ability to induce apoptosis in certain cancer cells while stimulating the immune system. Topically, oil infusions made from the leaves

are sometimes used in traditional rural practices to treat hemorrhoids and joint pain, leveraging its anti-inflammatory properties. Because every part of the plant is lethal if ingested in even small quantities, its medicinal value is strictly confined to professional herbalist and pharmaceutical contexts, emphasizing its role as a powerful, albeit dangerous, natural chemical factory.

Cultural: Oleander holds a dual identity in global culture, representing both exquisite beauty and silent danger. In India, the flowers (Karaveera) are a common feature in religious worship, particularly dedicated to Lord Shiva and Goddess Durga, symbolizing the intensity of devotion and the protective power of the divine. Its vibrant pink, white, and red blooms are frequently used in temple garlands and ritualistic offerings. Culturally, it is often planted near homes and cemeteries as a "guardian" shrub, believed in some traditions to ward off evil spirits and negative energy. In Mediterranean and Middle Eastern cultures, it has been celebrated in poetry and art for centuries as a symbol of endurance, as it is often the only plant seen blooming in the harsh, scorched landscapes of the desert summer. Despite its toxicity, it is a staple of tropical and subtropical landscaping, symbolizing the "Rose of the Desert." In some regional folklores, the plant serves as a cautionary tale for the younger generation—teaching that beauty and danger often coexist in nature. From its mentions in ancient herbal texts to its status as the official flower of the city of Hiroshima (representing the first bloom after the atomic blast), the Oleander remains a poignant symbol of resilience, rebirth, and the formidable power of the botanical world.

Location

GPS: 20.15860192, 85.76535449

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