

# Seed Banking & Conservation Collections



The Garden maintains Southwest Florida's only conservation seed bank. The ever-growing collection represents rare and common native species as storms, climate change, sea-level rise, invasive pests, and urban sprawl threaten all plants. It includes species from the Caribbean because Southwest Florida shares a plant palette, growing conditions, soil types, and weather patterns with its island neighbors.

Garden conservationists conduct novel research into long-term preservation strategies, plant growth habits, and preferred conditions. The seed collection and the knowledge gleaned from it allows the Garden to embark on restoration projects, amass native plants for use following natural disasters, and advise local governments on the trees and plants best suited for ecosystem health.

## The seed bank includes:

Nearly **745,000** seeds, representing **95** species

**84** species native to Florida

**33** species native to the Caribbean

**63** plants that grow only in our region

**20** state-threatened species

**5** state-endangered species

**6** federally listed threatened species

*Note: Figures as of September 2025*

## Notable Holdings

### *Meriania brevipedunculata*

Found only in the mountains of Haiti, this shrub is so uncommon that it has no known common name. A mere 39 individual plants in five populations are known to exist in the wild. The Garden has preserved 71,000 of its seeds.

### *Calopogon multiflorus*

This orchid, known as "many-flowered grass-pink," is a Globally Imperiled plant found in the Southeastern United States. It blooms only after a fire. The Garden holds approximately 100 seeds in its collection.

### *Harrisia portoricensis*

The "Puerto Rico apple cactus" is considered extinct in the wild. The Garden holds 62,000 of its seeds, collected and preserved as part of our Puerto Rican cacti project.





## Projects & Collections

### Rookery Bay Plant Surveys and Seed Collection

Specialists from the Garden and Rookery Bay National Estuarine Research Reserve are working to collect seeds and cuttings from habitats within the 110,000-acre reserve that are at risk of disappearing because of sea-level rise, erosion, storm damage, and other pressures. The seeds saved now can help restore ecosystems in the future.

### Beach Dune Restoration

Garden conservationists collect seeds and cuttings from native coastal plants, study how to multiply and grow them, and tend thousands of seedlings for use in restoration projects. Using local plant genetics—rather than ordering commercial stock from elsewhere—creates a better functioning ecosystem.

### Puerto Rican Cacti

Two invasive pests threaten the survival of Puerto Rico's native cacti. Through a partnership including Puerto Rican plant specialists and the U.S. Department of Agriculture, conservationists collected seeds and cuttings from uninfected cacti and shipped them to the Garden for safekeeping, ensuring the plants persist even if lost in their native habitats.

### Swamp Bay

The invasive *Xyleborus glabratus*, or redbay ambrosia beetle, carries a fungal disease that has decimated red bay (*Persea borbonia*) and swamp bay (*Persea palustris*) throughout the southeastern United States. The Garden's swamp bay collection has shown resistance to laurel wilt disease, making it a potential asset for future restoration projects. Moreover, swamp bay is a “crop wild relative,” or genetic cousin, to the avocado (*Persea americana*). Its genetics could be introduced to the popular fruit to bolster its resistance to disease.

### Netted Pawpaw

*Asimina reticulata* is another crop wild relative related to the edible pawpaw fruit that grows in temperate regions of the United States. The shrub began to flourish once the Garden began periodic prescribed fires in our Preserve.

