Cayman Islands Cycads

ontgomery worked with botanists in the Cayman Islands to survey, document and collect specimens of *Zamia integrifolia* this summer. As part of the Caribbean Zamia Project, leaflet samples from Grand Cayman, Little Cayman, and Cayman Brac – over 150 samples – were collected and prepared for DNA analysis.

Patrick Griffith and Michael Calonje are very grateful for the collaboration of John Lawrus from the Queen Elizabeth II Botanic Park, Fred Burton from the Blue Iguana Recovery Program, and Wallace Platts of the National Trust for the Cayman Islands, who each participated in fieldwork. With the help of these experts, the project team now has a complete sample of the genetic

diversity in these island cycads, which are locally called 'bullrush.'

The Cayman Islands are biogeographically important, located south of Cuba and west of Jamaica. Many intriguing species are only found in these three remote islands, such as the Silver Thatch Palm, *Coccothrinax proctori*. Given this unique flora and geography, the bullrush from these islands is essential to understanding cycad diversity in the region.

The Caribbean Zamia Project is a collaborative effort led by FIU, USDA Chapman Field, NYBG, and Montgomery, along with collaborators throughout the Caribbean. Fieldwork in the Cayman Islands was funded by the National Science Foundation.



Michael Calonje photographing bullrush on Cayman Brac

Africa = 7.5% Asia = 8.3% Asia = 8.3% Oceania = 7.8% Oceania = 7.8% Europe = 0.8% South America = 8.4% Caribbean = 12.6% Mesoamerica = 20.8% United States = 26.1% not wild collected

The World at Montgomery

At Montgomery, provenance of the plant collections is of great importance, with nearly three-quarters of the plants of wild-collected origin. This represents much effort and a significant investment of resources. The map at the left gives a breakdown of the current geographic representation on the Montgomery property. Shown in this way, the global breadth of Montgomery's plant collection can be easily seen.

Where to conduct fieldwork depends on many factors: ability of the plants to grow in South Florida, permits, funding, accessibility, local expert knowledge, and number of taxa already in the collections. Once collected, material is catalogued and tracked in the nurseries until it is mature and ready to be planted. Sites are carefully chosen for the growth requirements of each species and overall landscape design. After planting, each specimen retains a unique number which corresponds to records in the database and a mapped location, which allows ongoing data to be collected over the life of the plant.

As habitats world-wide continue to be threatened, wild-collected material and the genetic depth and diversity it contains will increase in significance. Montgomery and other gardens act as lifeboats for these invaluable plants.

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