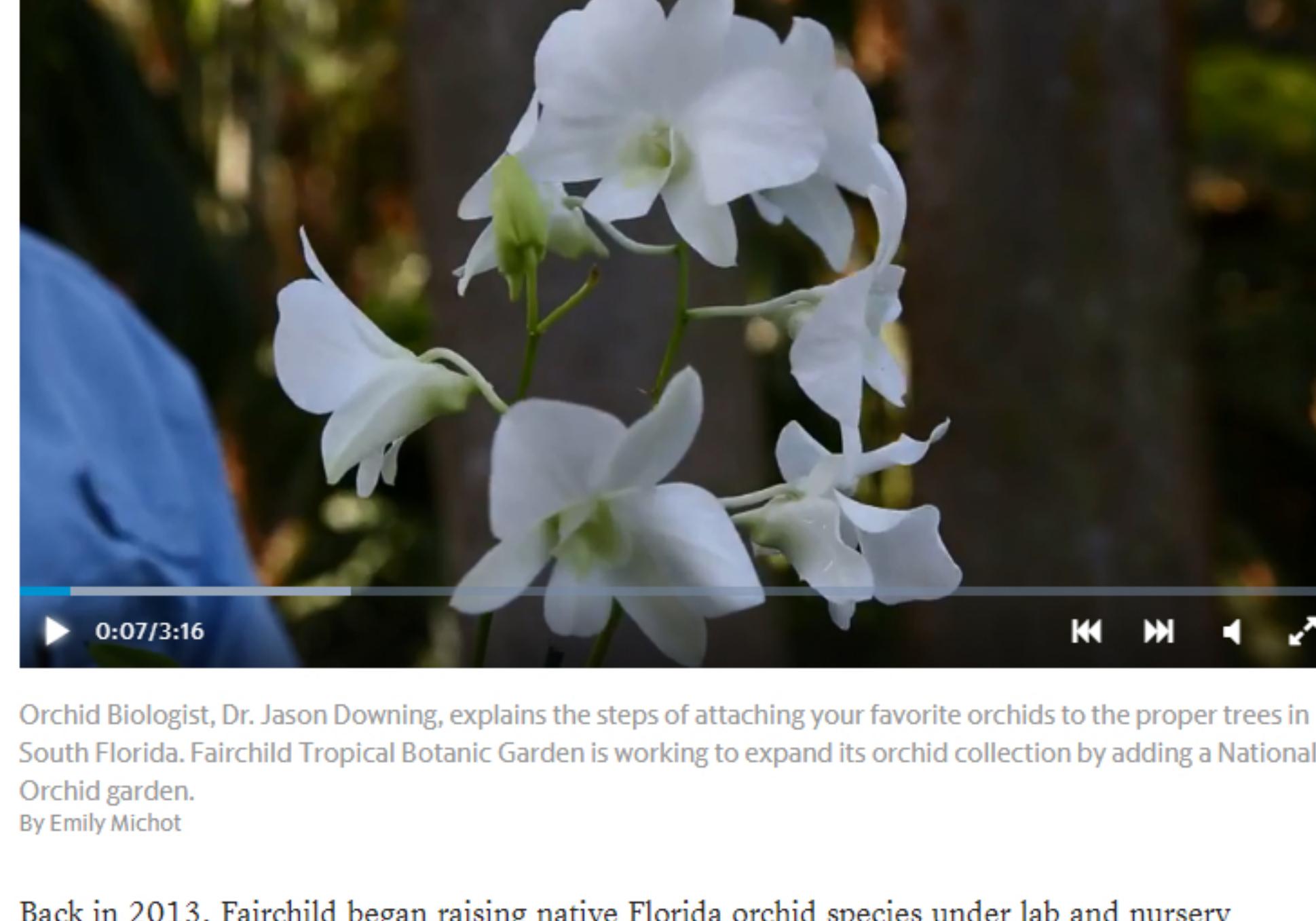HOME & GARDEN

# Want to help Fairchild grow a million orchids? Here's how to attach one to a tree

BY KENNETH SETZER

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Orchid Biologist, Dr. Jason Downing, explains the steps of attaching your favorite orchids to the proper trees in South Florida. Fairchild Tropical Botanic Garden is working to expand its orchid collection by adding a National Orchid garden.
By Emily Michot

Back in 2013, Fairchild began raising native Florida orchid species under lab and nursery conditions to repopulate our dwindling natural communities of these coveted plants. We had plans, experts, and goals in place, but as with all aspects of nature, you can never be exactly sure of how things will proceed.

Since then, the effort — called The Million Orchid Project — has surpassed expectations. It has taught us much about the possibilities and problems involved in conservation efforts, such as which orchid species is most likely to survive going from controlled lab conditions to a tree; and about the massive effort needed to meet the original goal of introducing a million native orchids into Miami-Dade urban communities.

Working with Miami-Dade County Public Schools was a major solution. Our botanists, along with school teachers, taught students techniques in science, conservation, horticulture, and plant propagation and built facilities at schools for students to grow these plants. Amazing developments followed, like the opening of BioTech @ Richmond Heights, a high school offering zoology and botany tracks.

Think how amazing this is: High school students can study botany — and not just from a textbook — as they experiment with hands-on techniques to determine ideal growing conditions. They're researching unknowns in many cases and recording the data.

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The project soon expanded to other schools and grade levels, with the Mobile STEMLab — a full micro plant propagation lab housed in a school bus — bringing science to middle schoolers. Most recently, we've added a botany magnet elementary school to the effort, where students will have an on-campus lab, shadehouse, and outdoor experimental garden.

## Where to put all these orchids

In addition to school properties, the orchids have been installed in trees and grounds at hospitals, and other areas. The project includes both terrestrial orchids (they grow in the ground) and epiphytic orchids (they grow attached to other plants and absorb nutrients from the air). But street trees still offer thousands of niches to harbor orchids. And home gardeners can attach orchids to trees in their own yards.



Use coconut coir in orchid attachment for good drainage.
KENNETH SETZER

Most recently, the Coconut Grove Business Improvement District partnered with Fairchild to enhance the commercial areas of the Grove by facilitating orchid installation in street trees, mostly along Main Highway. A goal was to increase the diversity and beauty of native plants seen here historically. The district contributed towards 750 plants, including the butterfly orchid (Encyclia tampensis), cowhorn orchid (Cyrtopodium punctatum), cockleshell orchid (Prosthechea cochleata), and night fragrant epidendrum (Epidendrum nocturnum).

This is quite an accomplishment for establishing a strong backup population of uncommon native species. And the flowers will look stunning in bloom.

## You *can* try this at home.

Everyone's received an orchid as a gift — most likely a Phalaenopsis, aka moth orchid. After you've enjoyed it indoors, move it to a tree in your yard. Non-gardeners need not fear, as anyone can easily mount these orchids outdoors. And we are fortunate to have near-perfect outdoor conditions for lots of orchids.

Find a tree with rough bark. Oak, cypress, buttonwood, mahogany, certain palms and many non-native trees are ideal. Avoid trees with peeling bark like gumbo limbo, or very sappy trees like black olive.

Remove the soon-to-be-free orchid from its pot, which often provides no drainage — a detrimental condition for these epiphytes. Don't be afraid to examine the roots closely and remove any brown, dead roots with a clean scissors. (Same goes for the dead leaf sheaths found on some orchids like cattleyas). Remove any old potting media.

Notice the roots' silvery look. After a soaking, the velamen — a layer of cells designed to absorb water — turns the roots green. If the roots are dry and silvery-gray, I soak the orchids in water before attaching them to a tree.

There's much conflicting advice on what side of the tree to use, but Jason Downing, Fairchild orchid biologist, has a simple guideline: Look for the lichen. They may appear as small, bushy clumps or look as flat as paint, but lichen indicates a good microclimate for orchids.
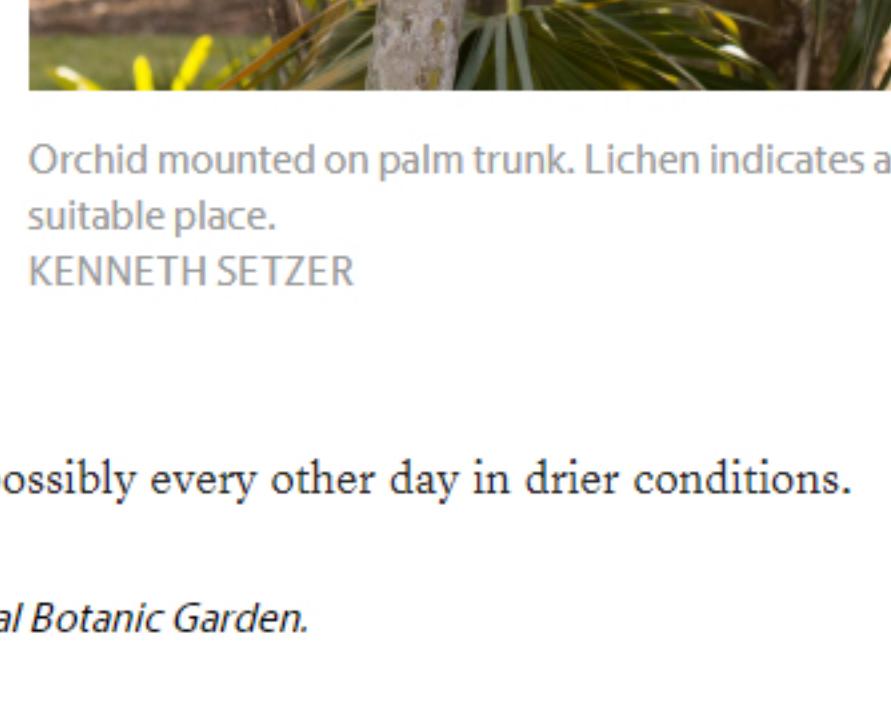
Orient the plant so new leaf growth is pointing out away from the trunk. Use soaked, long-form coconut coir (not the shredded kind) or sphagnum moss to cover the roots like a cup on one side. Using twine and a pair of helping hands, begin to tie the orchid at the root area to the tree. Try arranging the roots to encircle the tree trunk where possible before tying off. It may take two or more rounds of twine for a firm attachment.



Orchid mounted on palm trunk. Lichen indicates a suitable place.
KENNETH SETZER

Notice that Phalaenopsis have a leaf growth naturally leaning to one direction. Orienting this downwards aids the plant in shedding excess water that may otherwise lead to rot.

You want the orchid's roots quite secure against the trunk, as this helps them eventually attach themselves. Then, thoroughly water the orchid. Do this early in the day so excess water evaporates before nightfall. Watering depends greatly on location and species. For example Phalaenopsis do not have water storage organs so they need more frequent watering, possibly every other day in drier conditions.

*Kenneth Setzer is writer and editor at Fairchild Tropical Botanic Garden.*

Comments