

Article by Neil Jacobs—  
with Jen Modliszewski

## ★ ★ ★ Friends of Kissimmee Prairie Preserve News from the Florida Prairie

*Where the rare is commonplace.*



The authors working together to photograph an orchid in the field.

—Photo ©Walter Ezell



The intense, fiery yellow beard on the labellum of *Calopogon* is hard to miss and even harder not to appreciate.

—Photo ©Jen Modliszewski

# Manyflowered Grasspink: A search for a rare orchid ends at Kissimmee Prairie Preserve

In 2005, North Carolinians Neil Jacobs and his wife, Jen Modliszewski, began a quest to photograph all native species of orchids in the Carolinas. But there was a problem. One of those species—*Calopogon multiflorus*, commonly known as Manyflowered Grasspink, had not been seen in the Carolinas for many years. So when they learned the flower was blooming in Kissimmee Prairie Preserve last March, they quickly jumped on a plane to Florida and spent a day photographing this rare treasure.

Neil tells their story here, and includes descriptions of many of the *Calopogon* orchids and how to tell them apart.

In 2005, my wife, Jen and I decided to track down and document all of the native species of orchids in the Carolinas. There are well over 70 species not including hybrids and variants.

This quest was fairly simple at first because many of the common species were growing in the woods near our house. However, as the list grew smaller, the trips became more extreme and far-reaching.

Many of these species found their way onto the list via historical records, and had not been reported in the Carolinas for 50 or more years, mainly due to habitat destruction.

One of the final native orchid species on our list was the **Manyflowered Grass pink** (*Calopogon multiflorus*).

Three years ago in late February, while visiting Avon Park on business, I

decided to look for an area to do some exploring and discovered Kissimmee

Prairie Preserve. I spent about 3 hours meandering through the outlying regions, and noticed several recently burned areas. I knew that *C. multiflorus* was a fire-dependent species, and that it had been reported in central Florida. Before leaving, I asked at the park office if it had been

seen in the Preserve. Sure enough, it had, and due to regularly prescribed burns, it was actually considered a thriving population.

Last February, I emailed Christina Evans after noting that she had seen this species, and also regularly visits the Preserve. Orchids are their most photogenic early in the blooming cycle

“*Calopogon multiflorus* is the rarest species in the *Calopogon* genus native to the southeast US.”

continued—



The common name for *Calopogon multiflorus* originated from the idea that many of the flowers are open at once. As you can see from the photo, both keys and common names are not always exact!

—Photo ©Jen Modliszewski

## Manyflowered Grasspink, continued

when there are still buds at the top, but none of the lower flowers have begun to wilt. Since these flowers can easily develop blemishes from sun exposure, timing is critical. *Calopogon multiflorus* will typically only bloom a few weeks after a burn, and the burn has to be within a specific window of time to align with the preferred blooming period in late March to mid April. If these conditions do not occur, the plant will remain dormant below ground.

The prairie and pine savannas that play host to *C. multiflorus* rarely experience the regular fires that these plants have evolved to depend on to trigger blooming. As a result, the habitat rapidly becomes overgrown with other plant species that outcompete *C. multiflorus* for vital nutrients.

Each fireless season the dormant plants do not emerge forces them to deplete additional energy stores, or rely on a symbiotic relationship that enables the plant to obtain carbon via a mycorrhizal fungal partner that associates with a photosynthetic ectomycorrhizal host plant (possibly dwarf live oaks *Quercus minima*). Over several dormant seasons, the plants eventually die, and populations decrease in number until they are extirpated.

There used to be numerous populations of *C. multiflorus* in the Carolinas, but the numbers have dwindled to the point that no confirmed sightings have been reported for several years. We still visit regions with historical population records if there has been a recent burn, but we have come up empty-handed thus far, so making a trip to Kissimmee Prairie was looking like the only option.



*Calopogon multiflorus* stands out in its blackened environment.

Photo ©Christina Evans



Crested Caracara (*Caracara cheriway*)

Photo ©Christina Evans

Last March, Christina informed us that there was a recent burn, and that there were dozens, possibly hundreds, of *C. multiflorus* blooming, and many were in their initial bud stage. Excited to see the mass bloom, Jen and I packed our photography equipment, and were on a flight to Orlando the following day. We met up with park

biologist Paul Miller, who graciously escorted us to the site where the plants were flowering. Along the way, we spotted a couple of Crested Caracaras (*Caracara cheriway*) scavenging the roadsides and several Eastern Meadowlarks (*Sturnella magna*) chasing each other in the burnt scrub. We also came across several *Spiranthes vernalis* (Spring Lady's Tresses), a very common native orchid species, but always a treat to see.

The abundance of birds and diversity of plants makes Kissimmee Prairie Preserve a truly unique gem among protected park lands.

After surveying the area for over an hour, we found a few different plants, which represented a good variety of color forms. *Calopogon multiflorus* typically has a pink flower, but can span the range from pure white (*C. multiflorus* f. *albiflorus*) to deep magenta, with many light pink and lavender variants in between. *Calopogon multiflorus* is the rarest species in the *Calopogon* genus native to the southeast US. The other species are *C. barbatus*, *C. pallidus*, *C. tuberosus*, and *C. oklahomensis*, which is equally rare, but not considered a southeast species. Differentiating the species by visual identification in the field can be tricky unless you know what to look for.

*Calopogon tuberosus* is the simplest to identify because of its size. Coastal plants are easily two to three times the size of the others, which share similar size.

*Calopogon pallidus* (1) is also fairly easy to identify because the lateral sepals are highly reflexed, or bent

backwards. The flowers are also typically cocked to one side on the raceme, which has a green rachis.

*Calopogon barbatus* (2) is typically the most common species misidentified as *C. multiflorus*, as they are similar in height and flower size. Many field guides claim that *C. multiflorus* will have "many flowers" blooming at once, but based on experience, I don't consider this a reliable key. There is a somewhat distinguishing feature, which is the petal shape. Petals of *C. multiflorus* tend to be wider past the middle, and sometimes form a point at the end. After looking at photographs of both side-by-side, the petals of *C. multiflorus* are slightly different in a consistent way, but without a side-by-side comparison, this is not the most reliable method for identification.

My preferred telltale sign is the rachis color: *C. multiflorus* (3) has a dark maroon stem. While *C. barbatus* has also been known to bloom following a burn, and soil type can infrequently cause the entire raceme of *C. barbatus* to take

continued—



(1) *Calopogon pallidus*

Photo ©Christina Evans



(2) *Calopogon barbatus*

Photo ©Paul Miller



(3) *Calopogon multiflorus*

Photo ©Christina Evans

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### The Princess of Fire

*Like snow white she sleeps  
until the kiss of fire  
on the first days of spring  
awakens her. Only then  
does she come alive and dance  
in her flowery pink dress.  
There is no time to waste.  
Go, quickly, to witness  
her unblemished beauty.*

—poem by donna bollenbach

### Manyflowered Grasspink, continued

on a darker tint, you will not find a *C. multiflorus* with a green stem.

After looking over the population of *C. multiflorus*, we came across a very odd specimen (See (4) on preceding page.) It had cocked flowers with strongly recurved (falcate) lateral sepals, which are characteristic of *C. pallidus*. However, the bloom time and purple rachis are characteristic of *C. multiflorus*, suggesting that this plant may be a hybrid between the two species.

*Calopogon multiflorus* x *Calopogon pallidus* hybrids from Florida have been genetically and morphologically identified as hybrids by Douglas Goldman and colleagues. Although Paul Martin Brown chose to name these plants *Calopogon x floridensis*,

the name is not widely known or used, most likely because of the obscurity of the journal in which it was published. We were particularly fortunate to find this hybrid, as it is even more rare than *C. multiflorus*. Its presence also suggests that *C. pallidus* likely exists within Kissimmee Prairie Preserve, and that overlapping bloom times have occurred.

*After a lengthy day of photographing this special plant, we caught an evening flight home. We will certainly be visiting Kissimmee Prairie Preserve again in the future, and next time, it will be more than a day trip.*



*Calopogon multiflorus*  
—Photo ©Jen Modliszewski



Neil Jacobs & Jen Modliszewski

Photo ©Jim Fowler

Jen is an amateur photographer with a passion for plants, which began in her parent's vegetable garden and the shaded forests of the Blue Ridge Mountains. In 2005, she and her husband, Neil, began a quest to document the native orchids of the Southeast US. Jen focuses primarily on macro photography, because the splendor of most native orchids is difficult to appreciate with an unaided eye. She obtained her B.S. and M.S. degrees from North Carolina State University in botany and horticulture. She continued her studies at Duke University; for her Ph.D. research she investigated the effects of polyploidization on evolution in the shy monkeyflower, *Mimulus sookensis*. Jen currently works as a postdoctoral researcher at UNC-Chapel Hill. See more of Jen's photos on Flickr or Ipernity.

Neil grew up in Charleston, SC, and spent his childhood roaming the swamps of Francis Marion National Forest. Unlike Jen, he has no formal education in anything related to biology. He has B.S. and M.S. degrees in Physics from the University of South Carolina and NC State University, and a Ph.D. in Atmospheric Science from NCSU. When he is not playing the role of key grip for Jen's photography, he is staring at the forest floor somewhere between Pisgah National Forest and the Green Swamp.