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The Good Fires

If you live in Florida cattle country between the months of December and June, you may often wake up to the smell of smoke or see plumes of smoke on the horizon. One might think that a wildfire is flaring up, but it is quite the opposite. For decades, land managers in Florida have been using controlled burns to mimic the historic fire patterns that have influenced and maintained Florida's landscape for thousands of years. Archbold Biological Station studies the effects of these fires on different ecosystems in Florida.

Since before Florida was colonized, fire has played an important role in keeping the ecosystems healthy and diverse. Keith Brinsko, a Research Assistant at Archbold's Buck Island Ranch, states, "Some plants need fire to reproduce. If an area remains unburned for a long time, it is typically taken over by one or a few species of plants. This actually reduces the overall health of an area."

Dr. Betsey Boughton, Program Director of Agro-ecology at Buck Island Ranch explains, "For hundreds of years, Florida cattle ranchers maintained fire in Florida grasslands, prairies, and flatwoods even during the decades when it was popular to suppress fires. Ranchers usually burned to produce fresh green grasses for cows during the winter and spring. If ranchers had not been using fire for land management especially over the last one hundred years, our Florida landscape would look a lot different and the number of plant and animal species we see today

would be drastically reduced. We are fortunate the ranchers kept burning and maintaining a culture of fire. Prescribed fires are a beneficial disturbance for native plants and animals."

Burning can also be used to help ranchers and their cattle. Grazing lands can also be burned to remove dead grasses, add much needed nutrients to the soil, and make room for new higher quality grasses to be consumed by cattle. This is the typical prescribed burn used by cattle ranches in Florida today.

One such ranch is Archbold's Buck Island Ranch. Buck Island Ranch is a 10,500 acre cattle ranch located in Lake Placid, Florida that is right now carrying out some prescribed burns for this year. On dry windless mornings, evidence of their fires are visible from miles away. "It's important to wait for the right weather before we go out and burn," says Laurent Lollis, Ranch Manager at Buck Island Ranch. "If it's too wet or too windy, the fire won't spread properly or it could get out of control and that's something we always try to avoid." Land managers across Florida are required to register with the Florida Forest Service, apply for permits, and follow certain rules when it comes to burning their land. This ensures that prescribed burns are carried out consistently and safely across the State of Florida.

It was not always like this. In the 1930s, many scientists and federal agencies only saw fires as a destructive force, so they were often suppressed in order to protect the lumber industry. This, however, resulted in a higher chance of catastrophic forest fires. Understanding the fire history of Florida is crucial to developing the best burning methods. "Before people arrived, Florida's land was burned with dry weather and lighting strikes. Today we use drip torches and fuel for more controlled and observable burns." explains Keith Brinsko. There are currently several burn studies taking place at Archbold Biological Station and Buck Island Ranch. The information that they gather will be used to guide land management practices and protect the diversity of Florida forests and grasslands for many years to come.





Photo 2: Archbold staff on a controlled burn with a water truck. Photo by Keith Brinsko.



Photo 3: A line of fire in a controlled burn. Photo by Keith Brinsko.

