

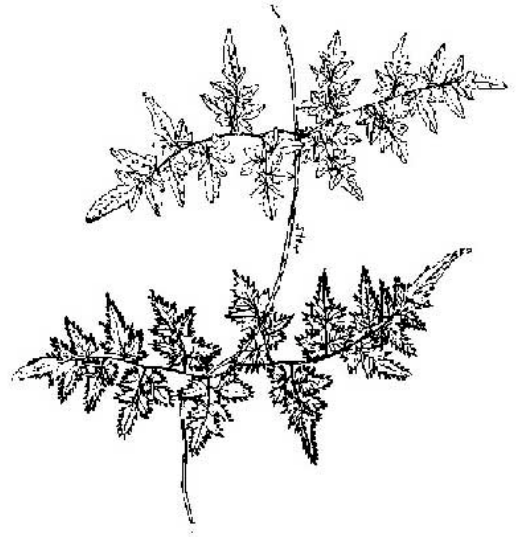
Old World Climbing Fern

by Karen Meisenheimer

GAINESVILLE - It will grow anywhere. In the dark shade and broad open sunlight. In wet, marshy soil and dry brittle ground.

It survives floods and encourages fire. And it's multiplying at a rate that scares state environmental officials like an old horror movie at the Saturday matinee.

The viny fern swallowing up thousands of acres of south Central Florida's pinelands, cypress swamps and Everglades tree islands is called the Old World climbing fern, or *Lygodium microphyllum*, and researchers from the University of Florida's Institute of Food and Agriculture Sciences are trying to determine the best way to control this aggressive plant.



"The *Lygodium* kills under story vegetation and even mature trees by blocking out the light," said Randall Stocker, director of the Center for Aquatic and Invasive Plants at UF. "Because it forms such a tangled canopy it is very tough to deal with and hard to walk through."

The fern, covering an estimated 39,000 acres, is relatively easy to kill with herbicides, Stocker said. The problem is getting rid of the dead vines that shroud trees and completely cover forest floors. The thick, strong vines form dense mats that look like giant Brillo pads, altering the flow of streams and halting other natural processes.

Unlike the disturbing kudzu that grows unruly in Southeastern states such as Georgia, stems from the Old World climbing fern do not decay in a reasonable time. Resource managers say it could take more than five years for the dead vines to rot.

It is believed that nurseries near Jupiter may have introduced the fern to Florida from Asia in the 1960s. Its soft, attractive leaves make beautiful hanging baskets that appeal to plant lovers.

The leaf of the *Lygodium* climbs, twines and branches freely so it resembles a long stem with little leaves, Stocker said. Each leaf from the fern can grow up to 100 feet long.

"This dad gum stuff doesn't seem to care where it grows," said John Street, natural areas supervisor for Palm Beach County. "It just likes Florida - like so many of our tourists who come down here and decide to stay.

"Its only redeeming quality is it's nice to look at," he said. "But once your brain kicks in, you realize this stuff has an insatiable land appetite and will grow over everything."

Recently the *Lygodium* has been spotted as far south as Broward County and as far north as Brevard County. The danger of the *Lygodium* is its ability to spread over such a broad territory and wide variety of locales, Stocker said.

The *Lygodium* will spread as far as the winds can blow its minute spores, which act as airborne reproductive devices, Stocker said.

Like neighboring counties to the west that are battling a smelly skunk vine that has taken over nearly 100,000 valuable acres, environmental officials from central Florida hope to halt the dangerous spread of the *Lygodium* before it gets to an unmanageable level.

In a 300-acre area west of Jupiter that includes hydric hammocks, flatwoods cypress and former agricultural land, field tests are being done to determine the best method for killing the menacing vine and purging the environmentally sensitive land of its stubborn and destructive remains.

Stocker said several products will kill the green fern tissue, although some have an impact on other plant species as well. They hope to discover a treatment that effectively kills the standing fern without having to cover the entire plant, resulting in a less time-consuming and less expensive control program.

"We have to look at cost effectiveness. We may not be able to utilize the best way to get rid of it. We have to use the most economical way," Street said. "But, if we ignore this fern long enough, it'll be such a problem we won't be able to afford to eliminate it at all. This stuff will double by this time next year."

Besides overwhelming other plants, the *Lygodium* poses a dangerous threat to the state's fire management by providing fuel ladders into tree crowns, as well as increasing fire spotting when lightweight clumps of burning fern are carried by the wind.

"The fern has altered natural fire ecology by greatly increasing the intensity of both wild and prescribed fires," Stocker said. "Native species that easily survive the intensity of normal fires can be killed by the intense heat from fires involving the fern."

Street said the proliferation of the Old World climbing fern has forced Palm Beach County to change its control burning methods, making fire management more expensive.

"We have to burn much slower now and in two directions," Street said. "Even then we're not certain we'll be able to keep the fire under control to prevent trees from dying."