The recent decision of the US Fish & Wildlife Service not to list the Venus Flytrap as an endangered or threatened species does not mean that this unique species is secure and does not need our help. It actually needs even more help than previously anticipated.

To make sure the species persists in the wild as a part of our Carolina natural heritage, we must work with private landowners who own many smaller populations as well as the federal and state agencies that own and manage the eight "highly resilient" populations discussed by the USFWS in its decision. Funds must be consistently available for regular prescribed burning and other management needs, such as restoration of hydrology altered by roads, fire breaks, etc. Funding for regular population monitoring will be essential to make sure populations do not simply fade away over time.

With the acceleration of many changes occurring in the outer coastal plain—including development and its associated increase in human population, sea level rise, and other climatic factors—we will have to ensure that land managers of today and of the future understand the specific needs of the Venus Flytrap. To succeed in our goal of ensuring that this, possibly the world's best known plant species, persists and actually thrives far into the future, we will look for a commitment among landowners and land managers to provide essential management and protection.

Given that wetland habitats where Venus Flytraps are found are not associated with navigable waters and, rather, are most commonly isolated wetlands, there is the additional issue that protection of such habitats is currently uncertain (see comments from Don Waller's comments below).

Please help Venus Flytrap Champions and many other organizations continue to recognize the precarious state of the Flytrap and accelerate the effort to assist land managers and owners.

—Julie Moore, Board member, Southern Conservation Partners and coordinator of Venus Flytrap Champions

\*\*\*\*\*

Below is a response from Dr. Don Waller, who submitted the petition to list Venus Flytrap (Dionaea muscipula) under the Endangered Species Act, in 2016

I was disappointed but not surprised to see that the U.S. Fish and Wildlife Service denied our petition to list the Venus Flytrap as Endangered. They concluded that this species faces no imminent threat of extinction, either now or into the foreseeable future. They claim remaining Flytrap populations are resilient, stable, protected, and well-managed. I hope they are right and that their data and analyses are correct. However, my own experiences as a conservation biologist leave me concerned.

This biologically unique and popular carnivorous plant is highly localized. Most wild populations live within 100 miles of Wilmington, NC. It is also remarkably specialized, not only in using a snap-trap to catch prey but also occurring almost exclusively in wet long-leaf pine savanna habitats in these coastal plains. If these wetland habitats dry out, or fail to burn regularly, or become too small and isolated, this plant disappears.

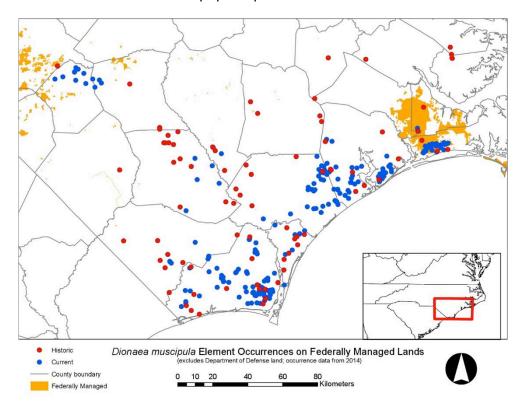
The USFWS is being optimistic and overconfident about countering the threats facing this species. They are particularly confident that eight "highly resilient" Flytrap populations will suffice to sustain the whole species not only over the next few years but indefinitely into the future. Anytime we put all our hopes for an entire species into a few remnant populations, we are risking a species' future. Even large and apparently stable and well-managed populations can crash unexpectedly from dangers we fail to foresee. Remarkably, over three-fourths of the global population of Flytraps live in just four large populations—on Camp LeJeune, North Carolina state game lands, and in the Green Swamp owned by The Nature Conservancy. We have now bet the future of this species on our ability to successfully protect and manage these few populations.

The USFWS does not respond in its current statement to the issue of how vulnerable the Venus Flytrap is to threats from **climate change**. Sea levels are rising faster than predicted a few years ago. The largest Flytrap populations the USFWS rates as most resilient and important for the species' viability occur at low elevations along the coast. This makes them vulnerable to rises in sea-level and storm surges. Flytraps are also in trouble if prolonged droughts dry out their wetland habitats, preventing reproduction. These threats have now grown because the U.S. Supreme Court has decided (in its *Sackett* decision) that federal protection no longer applies to roughly half of the U.S. wetlands previously protected. This paves the way legally for developers to drain or disturb ephemeral wetlands like those the Venus Flytrap depends on.

Unlike the USFWS, the International Union for the Conservation of Nature (IUCN) chose to add the Venus Flytrap to its Red-list, designating it as Vulnerable in 2020. In making this decision, IUCN cited the species' highly localized range, the elimination of many historical populations by

rampant development, poaching in many populations, and the critical dependence of Venus Flytraps on particular habitats sustained by recurrent fires and regular flooding.

The USFWS has concluded that the Venus Flytrap merits no federal protection because it faces no immediate threat of extinction. Given that extinction is forever, with no second chances, we must hope their strong confidence will be matched by sustained and successful conservation efforts. Conserving Venus Flytraps on private lands will be particularly important. If these falter, we could lose the world's most popular plant.



**Figure 7.** Current and historical range based on North Carolina Natural Heritage Program database from 2014 with non-Department of Defense federally managed lands. Most populations do not occur on federal lands and populations on federal lands continue to disappear. (*credit:* Yari Johnson)

[From: Waller, D.M. et al. 2016. Petition to list the Venus flytrap (*Dionaea muscipula*) as Endangered under the 1973 Endangered Species Act. October 21, 2016]

—Donald M. Waller, PhD

John Curtis Professor of Botany, retired

University of Wisconsin-Madison

Madison, WI 53706 USA

dmwaller@wisc.edu

http://www.researchgate.net/profile/Donald Waller2