

April 24, 2023

Via Email

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Re: Proposed Delisting of Dwarf Flowered Heartleaf (*Hexastylis naniflora*) FWS-R4-ES-2018-0081

On behalf of itself, the South Carolina Native Plant Society, and Upstate Forever, the Southern Environmental Law Center (the “Center”) submits these comments and the attached documents for the record related to the proposed delisting of the Dwarf Flowered Heartleaf (*Hexastylis naniflora*) as a Threatened and protected species under the Endangered Species Act.

In September of 2021, the Center sent the Service a Freedom of Information Act (“FOIA” or the “Act”) request for documents relating to this delisting proposal. These comments and submissions are based on documents that the Service produced recently pursuant to that FOIA request.

As set out below, the following documents further demonstrate that a delisting of this species would be arbitrary, capricious, and illegal.

1. The Service has ignored and redacted advice from knowledgeable botanists that recommends against delisting (Exhibit A).

Among the documents produced in recent incomplete FOIA productions are two redacted letters from botanists who have studied the Dwarf Flowered Heartleaf for years, L.L. Gaddy and Gillian Newberry, attached as Exhibit A.

Attached as part of Exhibit A are both the redacted and unredacted version of Dr. Gaddy’s letter, which we obtained independently of the redacted production by the Service. The Service redacted the portions of Dr. Gaddy’s letter that call into question the delisting decision, including the fact that the plant “is severely limited in possibilities.”

Dr. Newberry advises that the portion of her letter that has been redacted also would discourage delisting of this rare species. Even the unredacted portion indicates that delisting is ill-advised. Dr. Newberry points out that supposed populations of the plants in North Carolina are in fact a different species and that some populations in South Carolina are “showing some decline.”

Both these scientists were identified as peer reviewers for the delisting proposal, but the Service never obtained their advice during the peer review period. Both submitted comments during the public comment period critical of the proposal to delist the species. These letters provide further expert advice that undercuts the delisting proposal. As is true throughout the record, these experts provide no support for the notion that the plant has recovered since 1989 in a way that would justify delisting.

2. This delisting was predetermined (Exhibit B).

We have previously submitted documents establishing that the proposed delisting of the Dwarf Flowered Heartleaf was identified to satisfy the arbitrary and capricious Wildly Important Goal, or WIG, of FWS Region 4. Another produced document provides more evidence of the predetermined nature of the decision to delist this species.

On May 4, 2020, Don Morgan of the Service emailed Byron Hamilton of the Service seeking changes to the briefing paper for the proposed delisting, indicating that timing was “Critical.” When asked what the “Main Driver” was for the time pressure, the reply was “The Action is on our National Downlisting/Delisting Workplan for FY19.” The Service’s efforts were not being determined by science or the good of the species, but rather by arbitrary deadlines.

3. The Service has ignored declines in populations, threats to the species, lack of protections, and recommendations for recovery set out in the Status Report it commissioned. (Exhibit C).

In 2016, the Service received a Range-wide Status Report on the Dwarf Flowered Heartleaf from the North Carolina Natural Heritage Program. It contains disturbing facts.

Overall, the report estimates that the species is declining and has declined 10-30% over the last 30 years since the plant first received the protection of the Endangered Species Act. Report at 10. Given the specific reports of unexplained dramatic declines at supposedly protected sites, the continued conversion of habitat in the Piedmont of the Carolinas, and the growing impacts of climate change and land disturbances, this estimate appears conservative to say the least. In any event, overall there is no evidence of recovery or stabilization to justify a change in status since the species was listed in 1989.

a. “Protected” populations in South Carolina are declining.

Reports as to supposedly protected populations are even more disturbing. The Blalock Reservoir population in Spartanburg County, South Carolina, was once regarded as the largest population of the species and has been considered protected. Yet, it declined by 85% in less than 10 years, and the remaining population was feared to have dropped by 40% only 4 years later. Hundreds of plants were lost to destructive incursions into this supposedly protected population. By extrapolation, the Service estimated that the population had dropped by over 65% as of 2016. Again, this population was considered both protected and important, yet it appears to be in serious trouble and not protected in a meaningful sense. Report at 9.

Another population was considered protected because it is located on the Cowpens National Battlefield in Spartanburg County. Yet, from 2005 to 2016, the population dropped by over 70%. There are only guesses as to the cause of this dramatic decline. Report at 8-9.

There is a third South Carolina population at the Peters Creek Heritage Preserve. Disturbingly, the number of plants at that site dropped by more than 50% in the 17 years following the 1989 listing of the species. The most recent estimate is a 30% drop in the number of plants at this entirely protected property since 1991. Report at 9.

Thus, according to this status report, even the populations in South Carolina that are considered protected have seriously declined in recent years; there is no reason to think that the species in South Carolina has recovered since it was listed in 1989; and from this data alone, there is evidence to have great concern for the future of the species.

The South Carolina data is particularly important because the plants in the southern range of the species are less plagued by hybridization and are less likely to be a different species, as compared with those in the more northerly range of the species in North Carolina. As we and other commenters have pointed out previously, botanists studying the plant in North Carolina have determined that populations upon which the Service is basing its delisting decision are not in fact Dwarf Flowered Heartleaf.

b. The North Carolina data are also concerning.

Only two populations are reported as increasing in numbers, and both are at great risk. One is within the site of a coal- and gas-fired power plant owned by Duke Energy and is protected only by a voluntary agreement. That population could be eradicated or seriously reduced at any time by a change in land use at this intensively managed industrial site. The other site is “not at all protected.” Report at 10.

Many other sites described in North Carolina are in highway rights of way and have been impacted by highway expansions. Report at 8. Given the growth in the North Carolina Piedmont, there is no reason to think that Piedmont highways will not be widened in future years or that the populations in highway rights of way are protected from highway incidents, vehicle incursions, repair work, fires, spills, mowing, cutting, and maintenance. A rare plant in a highway right of way is not in any sense secure for the future. In an understatement, the status report notes: “There is still a need to verify that plants are protected by [North Carolina

Department of Transportation] in roadside rights of way and the manner of protection.” Report at 8. The North Carolina Department of Transportation (“NCDOT”) is not a botanical agency nor a flora and fauna conservation agency, and it is unrealistic to rely upon populations in NCDOT rights of way as populations on which the future of a rare plant species depends.

Another North Carolina site is a landfill site, and it declined in population by almost 50% in the eight years preceding the report. Report at 8.

The report’s review of existing populations does not find any meaningful or organized effort to tend, police, effectively protect, or expand protected areas for this species. The survey of existing populations provides no reason for the Service to be satisfied with the status of the species or progress in the effort to secure its survival. By and large, the existing populations are not meaningfully protected and/or are exhibiting disturbing population declines.

c. The threats that warranted listing in 1989 have only increased.

The Service should be concerned by the report’s recitation of the threats to the species, which have grown with alarming speed and force in recent years. This rare species occurs “in rapidly growing urban areas with expanding suburbs of Charlotte, NC to the east; Hickory, NC, to the north; and Greenville and Spartanburg, SC, to the south.” Report at 10. The report recites: “At the time of listing, it was determined that the species was most threatened by habitat loss to a conversion of land to residential, commercial, and industrial use in these areas”—a threat that has dramatically grown in magnitude in the years since 1989. The report points out that recent surveys have added many more adverse factors to the list including “land conversion to agricultural use, timber harvest, hydrological alterations from the damming of ponds, impacts from grazing cattle, ORV damage, trampling from foot traffic, invasive species, highway or road improvements, and erosion or siltation.” *Id.* To say the least, there is nothing in this report to indicate that the threats to this species have abated; rather, the report is full of reasons to fear for the future of this species.

The handful of “protected” sites listed on Appendix A3 of the report also do not provide a basis for concluding that the future of the species has been secured. For some of these sites, the table indicates there is no protection; for others, there are only voluntary agreements. A number of the sites are owned by NCDOT, not a conservation agency by any means.

Others are protected only by conservation easements, which provide various degrees of protection through negative covenants against development but often do allow the construction of one or more homes, outbuildings, roads, paths, ponds, or other infrastructure; timbering; livestock; and agriculture. Further, conservation easements do not impose or guarantee any kind of management or conservation obligations. The existence of a mere conservation easement does not guarantee protection or appropriate management for a rare plant. Indeed, the Blalock Reservoir population, which is supposedly protected by restrictive covenants, has declined dramatically and has been damaged by incursions. Easements, mitigation instruments, and deed restrictions do not ensure that plants will not be exposed to the known risks to their survival; nor do they secure the stability of populations of the species; they provide for no management or conservation measures; and they require, at best, only infrequent inspections.

Since the Service seems to rely so heavily on a handful of conservation easements, it should be emphasized again: While conservation easements normally prevent intensive residential and commercial development, they usually do not bar the kind of development and the kinds of uses that can harm rare plant populations; they do not typically require extensive monitoring of rare species but rather only an annual visit to ensure the basic terms of the easement have not been violated; and they normally do not require any affirmative actions to protect or conserve species. Even when there is a violation of an easement, it is often detected only after the fact, and sometimes long after the fact, after serious and even irreversible damage has been done.¹

Further, as noted above, the two most protected sites on the list—the Cowpens National Battlefield and the Peters Creek Heritage Preserve in South Carolina—contain populations that have experienced serious decline.

d. The report’s recommendations have not been carried out.

Finally, like the Service’s 2011 Status Review of the species, the report contains a recovery plan for the species, which has not been accomplished. Report at 12. The report’s list of action items includes: “Regularly monitor sites under protection and those of excellent viability to ensure stable population trends”; “Implement management practices at protected sites and populations of excellent viability”; “Complete genetic analysis to determine whether hybridization is occurring within the populations”; and “Encourage voluntary protection and stewardship through media and educational efforts for the public.” The report also contains recommendations for the permanent protection of sites and additional conservation of newly discovered populations, active management of those sites for the species, and effective protections against human encroachments and natural threats. These goals have not been achieved.

By proposing the delisting of this species, the Service has ignored the content and the recommendations of a report that the Service itself commissioned.

4. Other reports received by the Service have warned of continuing and increasing threats to the species and have recommended actions that have not been undertaken (Exhibits D and E).

The Service has other reports informing it of threats to the species and steps that must be taken to secure the survival of this species—steps that the Service has not taken.

¹ See, for example, [Conservation Easement FAQs | Conserving Carolina](#): Reserved rights can include “[b]uilding sites for future houses, driveways, barns or other structures, fencing, trails, gardens, and other things they may desire on the property in the future.” See also [TNC Conserv Easement.pdf \(scstatehouse.gov\)](#): “Typically, a landowner will retain the right to practice forestry (cut trees), hunt, fish, farm in specified areas of the property, and build a limited number of new buildings in specified areas”; [Protecting Working Forests with Conservation Easements | Land-Grant Press \(clemsun.edu\)](#): “Reserved rights for forestry practices may include timber harvests, reforestation, road construction, intermediate stand operations, and sources of generated income other than timber harvests such as pine straw raking, hunt leases, and recreation”; [Reinventing Conservation Easements | Lincoln Institute of Land Policy](#): “These rights impose a negative servitude (in other words, a set of promises not to do certain things) on the encumbered land, and they are permanently enforceable by the easement holder.”

The Service has in its files a 2007 report from researchers at Appalachian State University to NCDOT (Exhibit D). The report notes the care that must be taken to identify populations as *Hexastylis naniflora* rather than other *Hexastylis* species. Report at 3. The report points out that the species has been frequently impacted by highway construction projects and is likely to be impacted by highway construction projects in the future. Report at 20. The report determined that four populations that had previously been thought to be *Hexastylis naniflora* were in fact other species and noted the potential for hybridization in some areas where the species is found. Report at 94

The report concluded that the range and habitat of the species is very limited: “*Hexastylis naniflora* appears to have a restricted range due to its narrow habitat requirements and limited ability to disperse seeds. The habitat where *Hexastylis naniflora* exists is limited in size and scope due to a multitude of factors including soil type, moisture availability, and slope aspect.” Report at 97-98. The plant has a “limited range and size of populations,” such that “questions arise regarding gene flow between populations.” Consequently, “[a]ny efforts made to protect this species must consider giving protection to the available habitat.” Report at 98. These “habitat limitations indicate that the plant must have some type of protection in order to ensure its survival and genetic diversity.” Report at 101.

Appendix D of the App State report contains several recommendations for recovery of the species that are much like those in the NC Nature Heritage Program’s 2016 report. The App State report recognizes that this is “a very restricted species” that is suffering from declines in populations, highway construction, lake construction, urban sprawl, logging, and habitat destruction from pasture and pond construction. Report at 132. The report recommends the conservation of a number of populations that are self-sustaining and in locales that contain sufficient genetic variability; necessary management of the sites; addition of new protected sites as other populations are discovered; steps adequate to deal with human impacts and natural threats; adequate monitoring; pollination studies; research into threats to the species; management of conserved sites, not just “protection”; and genetic analysis. Report at 133-35. The coordinated initiative recommended by this report has not been undertaken by the Service.

Another study conducted by Zach Murrell at Appalachian State University for NCDOT in 2015 explained the difficulty of differentiating populations of *Hexastylis naniflora* from other species. Exhibit E at 41. Most plants in northerly parts of the plant’s range are in fact hybrids. Report at 42, 49. The report concludes that much more research is needed to understand the species and its genetics. Report at 52-53. Yet, under the WIG, the Service went ahead with the proposed delisting, ignoring this research and understanding.

Conclusion

These documents provide strong evidence that the Service should not deny this species the protections of the Endangered Species Act. This species has not recovered since 1989 but rather has declined substantially overall and dramatically in a number of locations, and the recognized threats to its survival have grown in number and intensity since the species was listed. The Service has no recovery plan for the species, and it has not carried out the

recommendations contained in its own 2011 Status Review or in the report provided to it and the N.C. Department of Transportation as necessary steps to ensure the continued existence of this species.

Sincerely,

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