DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[FF09E21000 FXES1111090FEDR 234]

Endangered and Threatened Wildlife and Plants; Two Species Not Warranted for Listing as Endangered or Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notification of findings.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce findings that two species are not warranted for listing as endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After a thorough review of the best available scientific and commercial information, we find that it is not warranted at this time to list the Illinois chorus frog (*Pseudacris illinoensis*) and Venus flytrap (*Dionaea muscipula*). However, we ask the public to submit to us at any time any new information relevant to the status of any of the species mentioned above or their habitats.

DATES: The findings in this document were made on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Detailed descriptions of the bases for these findings are available on the internet at *https://www.regulations.gov* under the following docket numbers:

Species	Docket Number
Illinois chorus frog	FWS-R3-ES-2023-0040
Venus flytrap	FWS-R4-ES-2023-0041

Those descriptions are also available by contacting the appropriate person as specified under **FOR FURTHER INFORMATION CONTACT**. Please submit any new information, materials, comments, or questions concerning this finding to the appropriate person, as specified under **FOR FURTHER INFORMATION CONTACT**.

FOR FURTHER INFORMATION CONTACT:

Species	Contact Information
Illinois chorus frog	Kraig McPeak, Field Supervisor, Illinois and Iowa Ecological Services Field Office, kraig_mcpeek@fws.gov, 309–757–5800
Venus flytrap	Dale Suiter, Botanist, Raleigh Ecological Services Field Office, dale_suiter@fws.gov, 919–856–4520

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SUPPLEMENTARY INFORMATION:

Background

Under section 4(b)(3)(B) of the Act (16 U.S.C. 1531 et seq.), we are required to make a finding on whether or not a petitioned action is warranted within 12 months after receiving any petition that we have determined contains substantial scientific or commercial information indicating that the petitioned action may be warranted (hereafter a "12-month finding"). We must make a finding that the petitioned action is: (1) Not warranted; (2) warranted; or (3) warranted but precluded by other listing activity. We must publish a notification of these 12-month findings in the *Federal Register*.

Summary of Information Pertaining to the Five Factors

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations at part 424 of title 50 of the Code of Federal Regulations (50 CFR part 424) set forth procedures for adding species to, removing species from, or reclassifying species on the Lists of Endangered and Threatened Wildlife and Plants (Lists). The Act defines "species" as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature (16 U.S.C. 1532(16)). The Act defines "endangered species" as any species that is in danger of extinction throughout all or a significant portion of its

range (16 U.S.C. 1532(6)), and "threatened species" as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). Under section 4(a)(1) of the Act, a species may be determined to be an endangered species or a threatened species because of any of the following five factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term "threat" to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term "threat" includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term "threat" may encompass—either together or separately—the source of the action or condition or the action or condition itself. However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an "endangered species" or a "threatened species." In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the

species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the Act's definition of an "endangered species" or a "threatened species" only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term "foreseeable future," which appears in the statutory definition of "threatened species." Our implementing regulations at 50 CFR 424.11(d), as revised in 2019, set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term "foreseeable future" extends only so far into the future as we can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. "Reliable" does not mean "certain"; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

In conducting our evaluation of the five factors provided in section 4(a)(1) of the Act to determine whether the Illinois chorus frog and Venus flytrap meet the Act's definition of "endangered species" or "threatened species," we considered and thoroughly evaluated the best scientific and commercial information available regarding the past, present, and future stressors and threats. We reviewed the petitions, information available in our files, and other available

published and unpublished information for all these species. Our evaluation may include information from recognized experts; Federal, State, and Tribal governments; academic institutions; foreign governments; private entities; and other members of the public.

In accordance with the regulations at 50 CFR 424.14(h)(2)(i), this document announces the not-warranted findings on petitions to list two species. We have also elected to include brief summaries of the analyses on which these findings are based. We provide the full analyses, including the reasons and data on which the findings are based, in the decisional file for each of the two actions included in this document. The following is a description of the documents containing these analyses:

The species assessment forms for Illinois chorus frog and Venus flytrap contain more detailed biological information, a thorough analysis of the listing factors, a list of literature cited, and an explanation of why we determined that each species does not meet the Act's definition of an "endangered species" or a "threatened species." To inform our status reviews, we completed species status assessment (SSA) reports for the Illinois chorus frog and the Venus flytrap. Each SSA contains a thorough review of the taxonomy, life history, ecology, current status, and projected future status for each species. This supporting information can be found on the internet at *https://www.regulations.gov* under the appropriate docket number (see **ADDRESSES**, above).

Illinois Chorus Frog

Previous Federal Actions

On July 11, 2012, we received a petition from the Center for Biological Diversity (CBD) and others to list 53 species of amphibians and reptiles, including the Illinois chorus frog, as endangered or threatened species under the Act. On July 1, 2015, we published a 90-day finding in the *Federal Register* (80 FR 37568) concluding that the petition presented substantial scientific or commercial information indicating that listing the Illinois chorus frog may be warranted. On February 27, 2020, CBD filed a complaint alleging, amongst other things, that the Service failed to make the statutorily required 12-month findings for 241 species, including the

Illinois chorus frog. On May 4, 2022, the court approved a settlement agreement between CBD and the Service to deliver a 12-month finding to the *Federal Register* on or before September 28, 2023. This document constitutes our 12-month finding on the July 11, 2012, petition to list the Illinois chorus frog under the Act.

Summary of Finding

The Illinois chorus frog is a member of the "Fat Frog" clade of North American chorus frogs that occurs in remnant sand prairie and sandy alluvial deposits in west-central Illinois, southeastern Missouri, and northeastern Arkansas. The species was first described as a subspecies of Strecker's chorus frog from Morgan County, Illinois. The Illinois chorus frog was subsequently suggested for recognition as a full species, although continuing genetic and morphological studies have failed to fully resolve its taxonomic status. We will use the species designation hereafter, as the Illinois chorus frog is recognized as a distinct species by the current taxonomic authorities and the States in which the species occurs.

The Illinois chorus frog is dependent on both aquatic and terrestrial habitats for survival and reproduction. Aquatic habitats—used by egg and tadpole life stages for rearing and adult life stages for breeding—are typically ephemeral wetlands that retain water from mid-February through mid-June and have limited abundances of egg and tadpole predators. Terrestrial life-stages of Illinois chorus frogs are closely associated with remnant sand prairies, sand savannas, or other deposits of sand and sandy soils. Sand is critical for the burrowing nature of the frog, as individuals actively select sand substrates and are unable to burrow in sod or other moderately compacted soils. Burrows are used to mitigate desiccation risk and to overwinter below the frost line. Suitable aquatic breeding and terrestrial non-breeding habitats must occur within close proximity to allow for the species to complete its life cycle.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Illinois chorus frog, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and

conservation measures addressing these threats. The primary threats affecting the Illinois chorus frog's biological status include habitat loss and climate change. We also examined a number of other factors including flooding, agricultural chemicals, sand mining, and disease, but these factors did not rise to such a level that affected the species as a whole.

Despite impacts from the primary stressors and some declines in extent of area historically occupied, the Illinois chorus frog currently occupies 878,282 acres (3,554 square kilometers) in 31 analysis units. Of the 31 analysis units, 7 healthy analysis units encompass 85 percent of the known historical range and 92 percent of breeding sites within two of the three representation units (areas that contain potentially unique adaptive diversity). Healthy analysis units are characterized as those that have 10 or more documented breeding sites, with connectivity among the breeding sites, and at least 5 breeding sites having documented strong breeding choruses (a group of 11 or more calling male frogs). The North representation unit contains three healthy analysis units that constitute 64 percent of the occupied area within the unit, and the South representation unit contains four healthy analysis units that constitute 97 percent of the occupied area within the unit. The total number of breeding sites contained per analysis unit ranges from 56 to 763 breeding sites, and based on recent surveys, the number of known breeding sites has increased in all three representation units from the number of known historical sites.

To evaluate future conditions of the Illinois chorus frog, we evaluated the impacts of projected habitat loss and climate change at 2055 and 2075. Across the Illinois chorus frog's range, some future declines in resiliency are projected due to impacts from habitat loss and climate change; however, the impacts are not projected to lead to a substantial reduction in redundancy and representation. The projected rates of habitat loss due to development and changes in climatic conditions are not expected to result in substantial reduction of the species or its habitat into the future. Minor projected increases in development may affect the availability of suitable habitat, with 2 percent of currently suitable habitat projected to be converted to non-

suitable habitats across the species' range. The projected loss of habitat due to development is projected to be greatest in the Central representation unit, with between 23 and 25 percent of cropland being converted to non-suitable land-use types. Although habitat loss is projected to occur at a higher rate within this unit, it comprises 0.9 percent of the overall acreage occupied by the species. Within the North and South representation units, only 1 to 2 percent of cropland is projected to be converted to non-suitable land-use and land cover types by 2075.

The projected impacts of climate on the Illinois chorus frog are less certain. We considered changes to climatic variables that could impact aspects of the species' life history such as breeding activity, development of tadpoles, dispersal, foraging, and overwintering. Mean temperatures, potential evapotranspiration, the length of the frost-free period, and winter and spring precipitation are projected to increase throughout the Illinois chorus frog's range, but summer precipitation is projected to decrease. However, the overall impact of these changes may be positive or negative, depending on the timing and duration of impact. The burrowing nature of the Illinois chorus frog also may mitigate the effects of climate change to some degree given that the species' behavior reduces desiccation risk. In terms of potential impacts from climate changes to the wetlands used for breeding, some spring temperatures and evapotranspiration rates are projected to increase. However, these changes may be offset by increased winter and spring precipitation. Because the Illinois chorus frog is able to use a wide variety of breeding habitats and the tadpole period is relatively short (35–50 days), rates of drought would need to substantially increase in frequency and duration (i.e., extended droughts over consecutive years resulting in reduced recruitment) to affect the species' viability.

Given the minimal projected increases in habitat loss and influence of climatic impacts, the threats are not likely to impact the Illinois chorus frog to a degree where there are substantial reductions in resiliency, redundancy, or representation. The species is currently well distributed throughout its historical range, and the threats are not projected to lead to loss of any representation unit. Although the Central representation unit is projected to have increased risk

when compared to the other representation units, the threats are not projected to increase to a degree that the Central representation unit will be at risk of extinction in the foreseeable future. Furthermore, this representation unit encompasses only 0.9 percent of the Illinois chorus frog's current range. Thus, we found no biologically meaningful portion of the Illinois chorus frog's range where threats are impacting individuals to an extent that the status of the species in that portion differs from any other portion of the species' range.

After assessing the best available information, we concluded that the Illinois chorus frog is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the Illinois chorus frog as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Illinois chorus frog species assessment and other supporting documents on *https://www.regulations.gov* under Docket No. FWS-R3-ES-2023-0040 (see **ADDRESSES**, above).

Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in the Illinois chorus frog SSA report. The Service sent the SSA report to four independent peer reviewers and received four responses. Results of this structured peer review process can be found at *https://www.regulations.gov* under Docket No. FWS-R3-ES-2023-0040. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

Venus Flytrap

Previous Federal Actions

On October 21, 2016, we received a petition from Donald Waller and 25 other individuals to list the Venus flytrap, as an endangered or threatened species and to designate

critical habitat under the Act. On December 20, 2017, we published a 90-day finding (82 FR 60362) that the petition contained substantial information indicating listing may be warranted for the species. This document constitutes our 12-month finding on the October 21, 2016, petition to list the Venus flytrap under the Act.

Summary of Finding

The Venus flytrap is a perennial herbaceous vascular plant species endemic to southeastern North Carolina and northeastern South Carolina. It has a historical range within approximately 100 miles (161 kilometers) of and including Wilmington, North Carolina**.** The carnivorous plant is well known for its ability to trap prey in its distinctive leaves.

A population of Venus flytrap may vary widely in size, ranging from a single cluster of a few individuals to tens of thousands of individuals distributed over several hectares. The Venus flytrap occurs in wetland habitats in the Outer and Inner Coastal Plain and Sandhills ecoregions. In the Outer Coastal Plain, where it is more common, large populations of Venus flytrap occur in sandy pine savannas and wet pine flatwoods. In the Sandhills region, Venus flytrap plants are limited to seeps between evergreen shrub bogs along small creeks and pine/scrub oak uplands. The species needs abundant light, abundant moisture, moist acidic soils, arthropods, as well as sustainable population size and connectivity between populations. Only sites that are well managed with prescribed fire are likely to support Venus flytrap populations over time. The Venus flytrap is well adapted to fire and can be abundant and a major component of the herbaceous understory where favorable conditions exist.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Venus flytrap, and we evaluated all relevant factors under the five listing factors, including any regulatory mechanisms and conservation measures addressing these threats. The primary threats affecting the Venus flytrap's status are associated with various actions that modify or destroy habitat, such as fire suppression. Other threats that modify or destroy habitat include right-of-way maintenance and conversion to

agriculture (including silviculture) and residential and commercial development. Additional stressors that could have a negative effect on the species include poaching and small population size.

While there are several stressors to the species and several small/isolated populations have been extirpated, the largest and most robust populations of Venus flytrap have maintained resiliency in the face of these threats. The Venus flytrap has multiple resilient populations distributed in wetlands in the Coastal Plain and Sandhills of southeastern North Carolina and northeastern South Carolina, which is an indication that the species can withstand catastrophic events. Habitat loss and modification is the primary factor influencing the species rangewide, yet 18 populations are in moderate to high condition, and these populations contain nearly 865,000 plants. The Venus flytrap has maintained robust populations over decades, many in protected areas, which supports the idea that the species can withstand stochastic events and indicates population resiliency. Furthermore, there are many ongoing positive actions that benefit the Venus flytrap, such as habitat protection and management, State felony laws that protect the Venus flytrap from poaching, international permitting requirements, and horticultural availability of ethically grown plants. Thus, the threats appear to have low imminence and magnitude such that they are not significantly affecting the species' current viability.

We analyzed future scenarios over a 50-year timeframe that incorporated the best available information for future projections of habitat loss (i.e., development) under two different climate change futures (SSP2 and SSP5), as well as burn concern and fire management potential. Considering land use changes caused by development in the future scenarios, the threat of habitat loss would not change the conditions of most of the Venus flytrap populations by the year 2070. In fact, the results of our future conditions analysis indicate no change in the future resiliency of Venus flytrap populations that are currently in high resiliency condition, regardless of fire management scenario, climate scenario, and year. Within fire management scenarios, the total resiliency conditions remained the same in 2050 and 2070 for SSP2. SSP5 showed greater

variation within management scenarios and time steps. The SSA report describes some of the future uncertainties, but, considering the available data, the risk of extinction is low in the future. The eight populations currently in high resiliency condition are all predicted to remain in high resiliency condition 30 and 50 years into the future. This is primarily because these populations are currently protected and managed, and those conditions are not likely to change in the future. These highly resilient populations represent 92 percent of the area occupied by populations on the landscape.

Therefore, after assessing the best available information, we determine that the Venus flytrap is not in danger of extinction now or likely to become so in the foreseeable future throughout all of its range.

We then evaluated the range of the Venus flytrap to determine if the species is in danger of extinction now or likely to become so in the foreseeable future in any significant portion of its range. The Outer Coastal Plain is considered a biologically meaningful portion of the species' range, as it contains the majority of extant populations and is considered the core of the range. This portion contains the majority of populations with high and medium resiliency, and the populations are largely on lands that are protected and managed for conservation. For these reasons, the Outer Coastal Plain portion was not determined to have a different status than the species' range as a whole.

The Inner Coastal Plain portion contains only one low-resiliency population of the Venus flytrap, indicating that this small and isolated population is currently at risk of extirpation, primarily because the lack of resiliency makes the population susceptible to both stochastic and catastrophic events. Threats to this small population could have a disproportionate impact in this portion. Therefore, this portion does have a different status than the species' range as a whole, and the species is in danger of extinction now in the Inner Coastal Plain. However, the Inner Coastal Plain is comprised of primarily agricultural land, and most sites where the species occurred historically and the one site where it currently exists are considered marginal habitat.

This habitat does not provide high value habitat to the species, nor is the habitat considered to have unique value, as it is marginal and not overly conducive to the species' survival. In addition, the Inner Coastal Plain, which consists primarily of the narrow corridor along the Cape Fear River between the Outer Coastal Plain and the Sandhills, makes up a very small portion (0.7%) of the overall species' range. For these reasons, the Inner Coastal Plain is not considered to be a significant portion.

The Sandhills portion contains two medium-resiliency populations and seven low-resiliency populations of the Venus flytrap. The two medium-resiliency populations are considered protected in habitat managed with fire by the Department of Defense and are predicted to maintain medium resiliency over the next 50 years. However, the high number of low-resiliency populations, which are small and isolated, indicates some susceptibility to extirpation from stochastic and catastrophic events. The timing of whether any or all of these populations could be extirpated is uncertain, but is considered possible in the foreseeable future, and these losses in this portion could potentially put the species at risk of extirpation in the future. With the potential loss of populations in this portion, we determined that it is possible for this portion to have a different status than the species' range as a whole, and thus consider the species in danger of extinction within the foreseeable future in the Sandhills.

The habitat that supports the Venus flytrap in the Sandhills is different than in other parts of the range. Because of its requirement for moist soils, the Venus flytrap in the Sandhills is limited to seeps that are narrow, moist ecotones between streamhead pocosins (linear, evergreen shrub bogs along small creeks), and pine/scrub oak uplands. These seeps are likely the only areas in the Sandhills that provide conditions suitable for the Venus flytrap to grow. However, they do not represent unique value habitat, as they are simply the wetter ecotones that provide suitable conditions for Venus flytrap plants to grow. These areas are also not necessarily high value relative to habitat in the remaining portions of the range, particularly when compared to habitat in the Outer Coastal Plain that continues to be the stronghold for the range of the species.

Furthermore, the Sandhills make up only 0.4 percent of the total area of the range of the species, which is a very small portion relative to the range as a whole. For these reasons, we determined that the Sandhills is not a significant portion.

After assessing the best available information, we concluded that the Venus flytrap is not in danger of extinction or likely to become in danger of extinction throughout all of its range or in any significant portion of its range. Therefore, we find that listing the Venus flytrap as an endangered species or threatened species under the Act is not warranted. A detailed discussion of the basis for this finding can be found in the Venus flytrap SSA report and other supporting documents on *https://www.regulations.gov* under Docket No. FWS-R4-ES-2023-0041 (see **ADDRESSES**, above).

Peer Review

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994) and the Service's August 22, 2016, Director's Memo on the Peer Review Process, we solicited independent scientific reviews of the information contained in the Venus flytrap SSA report. The Service sent the SSA report to six independent peer reviewers and received four responses. Results of this structured peer review process can be found at *https://www.regulations.gov* under Docket No. FWS-R4-ES-2023-0041. We incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this finding.

References Cited

A list of the references cited in this petition finding is available in the relevant species assessment form, which is available on the internet at *https://www.regulations.gov* in the appropriate docket (see **ADDRESSES**, above) and upon request from the appropriate person (see **FOR FURTHER INFORMATION CONTACT**, above).

Authors

The primary authors of this document are the staff members of the Species Assessment

Team, Ecological Services Program.

Authority

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Martha Williams,

Director,

U.S. Fish and Wildlife Service.

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