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## *Legislative Report on Invasive Species Management and Native Grasses in the North Carolina State Parks System – April 20, 2026*

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### Background on Request

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Section 20.(b) of [Senate Bill 391](#) requires:

“The Department of Transportation and the Department of Natural and Cultural Resources, in consultation with North Carolina State University and North Carolina Agricultural and Technical State University, shall study and develop (i) a list of native grasses, plants, and seeds appropriate for use in place of nonnative turf grasses and nonnative grasses, plants, and seeds used for the purpose of soil and slope stabilization for erosion control and (ii) a list of high-threat invasive plant species and a plan for removing existing invasive plant species from State parks and highway rights-of-way. The Department of Transportation and the Department of Natural and Cultural Resources shall provide a report on the study and development of the lists and plan to the 2026 Regular Session of the 2025 General Assembly upon its convening.”

The information in this report documents the status, constraints, and opportunities of invasive species management of the North Carolina State Parks System within the Department of Natural and Cultural Resources (“DNCR”) Division of Parks and Recreation (“DPR”). This report also documents native turf grasses to North Carolina. More research should be done to identify suitability of these grasses for soil and slope stabilization for erosion control.

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## **SECTION 1. STATE PARKS INVASIVE SPECIES MANAGEMENT**

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### Current Status

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The DPR invasive species program manages invasive species throughout more than 250,000 acres of park property across the North Carolina State Park System. When fully staffed, the invasive species program currently consists of two permanent staff – an invasive species program coordinator and invasive species biologist – and a crew of four temporary employees to manage invasive species across the entire system. The program manages a variety of invasive species, including plants, insects, and animals, using management techniques including herbicide application, biological controls, and prescribed fire.

Appropriate management techniques are determined at a project and species-specific level with consideration for best management practices for treatment, seasonality, and potential indirect impacts to native species and habitat.

Invasive species program staff completed 32 management projects in 2025, treating 45 species identified as invasive by the NC Invasive Plant Council across 208 acres of park property. These projects required approximately 660 gallons of herbicide.

DPR collaborated with the North Carolina Department of Environmental Quality (“DEQ”) Aquatic Weed Control Program on 13 projects to manage aquatic invasive species using cost-share funds of \$110,400 (\$55,200 each) in 2025. DPR is also collaborating with the US Department of Agriculture’s Animal and Plant Health Inspection Service (“APHIS”) to manage invasive feral hogs with a Cooperative Service Agreement of \$150,000 over the next three years. These types of partnerships are critical for large-scale, specialized invasive species management within park boundaries.

The total operating expenses for the DPR invasive species program in 2025, excluding salary, were approximately \$135,000.

## Invasive Species Management Identification and Project Prioritization

### Identification

As identified in the companion North Carolina Department of Transportation (“DOT”) High-Threat Invasive Plant Species and Removal Plan Report, DPR has identified the top 15 high-threat invasive weeds of concern under a severity of threat framework in collaboration with DOT and North Carolina State University. Table 1 shows the top 15 high-threat invasive weeds with DPR State Parks rankings of three levels of “threat.” In some cases, DPR’s threat ranking defers from DOT due to slight variations in overall mission and management of these environments. See DOT’s High-Threat Invasive Plant Species and Removal Plan Report for further descriptions of invasive plants identified and recommended best management practices. DPR does conduct invasive species management beyond the fifteen high priority invasive species identified in Table 1.

### Ranking Criteria

**Rank I – Extreme Threat:** Invasive species which display the highest degree of environmental and management concern.

**Rank II – Severe Threat:** Invasive species which display a high degree of environmental and management concern, but are not perceived as threatening as Rank I.

**Rank III – Considerable Threat:** Invasive species which display varying degrees of environmental and management concern, but are not perceived as threatening as Rank II.

**Table 1.**

High-threat Invasive Species	Scientific Name	Cross-referenced List	NCDOT Ranked <sup>5</sup>	State Parks Ranked <sup>6</sup>
Kudzu	<i>Pueraria montana</i>	1 (Rank 1), 2, 5, 6, 7	I	I
Cogongrass	<i>Imperata cylindrica</i>	1 (Rank 2), 3, 4, 6	III	I
Phragmites	<i>Phragmites australis</i>	1 (Rank 1), 5, 6, 7	I	II
Oriental bittersweet	<i>Celastrus orbiculatus</i>	1 (Rank 1), 4 (Class C), 5, 7	III	I
Alligatorweed	<i>Alternanthera philoxeroides</i>	1 (Rank 1), 2, 6, 7	II	III
Tree of heaven	<i>Ailanthus altissima</i>	1 (Rank 1), 5, 7	II	I
Privet spp.	<i>Ligustrum sinense, L. japonicum</i>	1 (Rank 1), 5, 7	II	II
Mimosa	<i>Albizia julibrissin</i>	1 (Rank 1), 5, 7	III	III
Multiflora rose	<i>Rosa multiflora</i>	1 (Rank 1), 5, 7	II	II
Miscanthus	<i>Miscanthus sinensis</i>	1 (Rank 1), 5, 7	I	I
Wisteria spp.	<i>Wisteria sinensis, W. floribunda</i>	1 (Rank 1), 5, 7	III	II
Autumn olive	<i>Elaeagnus umbellata</i>	1 (Rank 1), 5, 7	III	III
Johnsongrass	<i>Sorghum halepense</i>	1 (Rank 2), 5, 7	I	III
Japanese knotweed	<i>Reynoutria japonica</i>	1 (Rank 1), 7	I	II
Callery pear	<i>Pyrus calleryana</i>	1 (Rank 1), 7	II	III

<sup>1</sup>North Carolina Invasive Plant Council. NC Invasive Plants List – Ranked Invasive Plant List 2023. (Rank 1: Severe Threat; Rank 2: Significant Threat; Watch List: Exotic and may become a problem).

<sup>2</sup>North Carolina Department of Transportation, Vegetation Management Section: Noxious and aquatic weeds.

<sup>3</sup>United States Department of Agriculture, Animal and Plant Health Inspection Service: Federal Noxious Weed List.

<sup>4</sup>North Carolina Department of Agriculture & Consumer Services: Plant Industry – Noxious weeds list.

<sup>5</sup>North Carolina Forest Service: Invasive Species Leaflets.

<sup>6</sup>North Carolina Wildlife Resources Commission: State Wildlife Action Plan 2025.

<sup>7</sup>Wildlife in North Carolina. September-October 2025: Quiet Invasions.

<sup>8</sup>Rank I invasive species display the highest degree of environmental and management concern, Rank II invasive species display a high degree of environmental and management concern, but are not perceived as threatening as Rank I, whereas Rank III invasive species display varying degrees of environmental and management concern, but are not perceived as threatening as Rank II.

## Methodology for Invasive Species Management

Staff leading the DPR invasive species program identify, implement, and monitor invasive species management projects using an established methodology. Steps include:

1. **Identification:** Staff identify a site with invasive species. This identification may be obtained through site visits or reports from park staff or visitors.

2. **Surveying:** Staff within the invasive species program work with other DPR natural resources staff along with park unit staff to survey the site and collect georeferenced data. This is done using GIS and the Field Maps application.
3. **Prescription Development:** Invasive species program staff work with other DPR natural resources staff to develop a management prescription. This is a detailed plan documenting recommended treatment methods, specific herbicide(s) to use as required, and time of year for treatment based on species-specific requirements. Prescriptions consider a range of factors including site characteristics, native species on site, appropriate chemicals to use and associated safety, and public access.
4. **Prescription Implementation:** Natural resources staff collaborate with staff at the individual park, and partners through contracts as needed, to implement the required treatment prescription.
5. **Follow-up and Monitoring:** DPR staff complete long-term monitoring and follow-up treatments to project sites to reduce or eliminate recurrence.

DPR staff do not currently have capacity to manage all identified invasive species projects across park units. Led by the invasive species program, natural resources staff prioritize projects based on factors including projected impacts to critical habitat, projected likelihood and rate of spread, collaboration opportunities with volunteers or partner groups to maximize project capacity, and threats to public safety caused by specific species that may intensify wildfire.

DPR has a long-term goal, contingent on increased capacity, to develop invasive species management plans for each park unit. This will include a synopsis of site-specific prescriptions within the park over time with documented tracking of follow-up needs, responsibilities, and outcomes.

### Management Constraints, Opportunities, and Needs

There are currently 175 documented needs for invasive species management projects throughout the state park system, and more projects will be identified as park property is further surveyed. The program is constrained by limited staff, equipment, and funding, making 30-35 projects possible each year under existing operations. A table identifying priority projects for 2026 is attached. This currently includes 50 projects, which will be further refined based on priority needs, treatment window opportunities, and park-specific capacity.

Currently, one crew of four temporary employees is relied on to manage invasive species across the state, with leadership from two permanent staff and support from regional biologists, regional fire staff, and park personnel including park rangers and maintenance staff. Invasive species are inherently aggressive in their spread and therefore difficult to manage long-term without the proper resources. DNCR projects that four additional crews

(totaling five crews statewide) would be required in order to meet demand for invasive species management within the state park system. Each crew would require four staff members, equipment, and funding.

DNCR recommends each crew have a permanent crew lead to be most effective in addition to three temporary employees. The projected cost to add 12 new 11-month temporary crew members and 5 new permanent Crew Lead positions – which includes a permanent position for both the existing crew and 4 new crews – is \$1,630,000 annually with a one-time startup cost of \$487,000. This estimate includes staff salary, available benefits, projected travel and resource needs, and initial equipment and tools. This does not factor in housing, which is generally in-park for temporary crew members.

Additional funding for contracting work may be required to address specific invasive species projects. This would support the continuation and expansion of partnerships like those with DEQ and APHIS, which enable specialized management efforts at scale.

**Table 2. State Parks System Invasive Species Priority Projects**

Season Suited for Management	Preferred Month(s)	Project Name	Park Name	Species	Management Technique
Spring	February, March, April	Fig Buttercup	ENRI	Ficaria verna	Foliar
Spring	February	Hemlock HRI	STMO	Hemlock wooly adelgid	Tablets
Spring	March	Naked Creek	MOJE	Callery pear, Autumn olive, Garlic mustard	Foliar, Cut Stump
Spring	March	Lower Haw	JORD	Autumn olive	Cut Stump
Spring	April	PIBO N	GRMO	Rose, privet, coltsfoot, yellow flag iris	Foliar, Hand pull
Spring	April	PIBO S	GRMO	Reed canary grass, privet, Yellow flag iris	Foliar, Hand pull
Spring	May	Gateway X mas tree fields	YEMO	ToH, rose, Miscanthus, bittersweet	Foliar, Frill and Spray
Spring/ Summer	April, May, June	Bahia grass	CACR	Bahia grass	Foliar
Spring/ Summer	May	Slough Phrag	CABE	Phragmites	Foliar
Summer/ Fall	May	Gen. Invasive survey	MOMO	Miscanthus, wisteria, lespedeza	Foliar, Frill and Spray
Spring/Summer	May, June	Group Campground	PETT	Privet	Foliar
Spring/Summer	May, June	Old Homesite	PETT	Privet	Foliar
Spring/Summer	April, May, June	Griffins Bluff	LURI	Wisteria, Nandina, China Berry, English ivy	Foliar
Spring/ Summer	April, May, June	Autumn olive unit 1	DERI	Autumn olive, privet,	Foliar, Cut Stump
Spring/Summer	April, May, June	Wisteria patch	DERI	Wisteria	Foliar, Cut Stump
Spring/ Summer	May, June	Bamboo Ranger House	ENRI	Bamboo	Cut Stump, soil tablets
Spring/ Summer	May, June, July, August	Nine Springs	CLNE	Privet, China berry, sericia	Foliar, Cut Stump
Spring/ Summer	May, June, July, August	Flat Shoals	HARO	Kudzu	Foliar
Spring/ Summer	May, June, July, August	Dan River	HARO	Kudzu, Wisteria	Foliar, Cut Stump
Spring/ Summer	June, July, August	Occoneechee	ENRI	Wisteria	Foliar, Cut Stump
Spring/ Summer	May, June, July, August	LV Bradford Pear	CACR	Bradford pear	Foliar, Basal bark, Tablets
Spring/ Summer	May, June, July, August	Aquatic Weed Control	WIUM	Parrotfeather, Hydrilla	Aquatic application
Spring/ Summer	May, June, July, August	Aquatic Weed Control	GOCR	Phragmites	Foliar
Spring/ Summer	May, June, July, August	Aquatic Weed Control	RUHI	Phragmites	Foliar
Spring/ Summer	May, June, July, August	Aquatic Weed Control	CABE	Phragmites	Foliar
Spring/ Summer	May, June, July, August	Aquatic Weed Control	CRMO	Primrose	Aquatic application
Spring/ Summer	May, June, July, August	Aquatic Weed Control	DISW	Phragmites	Foliar
Spring/ Summer	May, June, July, August	Aquatic Weed Control	ENRI	Parrotfeather	Aquatic application
Spring/ Summer	May, June, July, August	Aquatic Weed Control	FOFI	Phragmites	Foliar
Spring/Summer	May, June, July, August	Aquatic Weed Control	HABE	Phragmites	Foliar

Spring/ Summer	May, June, July, August	Aquatic Weed Control	JORI	Phragmites	Foliar
Spring/ Summer	May, June, July, August	Aquatic Weed Control	MEMI	Parrotfeathther	Aquatic application
Spring/ Summer	May, June, July, August	Aquatic Weed Control	MOMO	Primrose	Aquatic application
Spring/ Summer	May, June, July, August	Aquatic Weed Control	PETT	Phragmites	Foliar
Spring/ Summer	April, May, June	Dam Invasives	LAWA	Taro, Tallow tree	Foliar, Cut Stump, Hand pull
Spring/ Summer	April, May, June	Slough Tallow Tree	CABE	Tallow tree	Foliar, Cut Stump
Summer	June	General invasive work	MIMI	Wisteria, Privet, Nandina, Mimosa	Foliar, Cut Stump
Summer	June	Kudzu Convenience Center	CACR	Kudzu	Foliar, Cut Stump
Summer	June	Wisteria LV	CACR	Wisteria	
Summer	June	Boyd Wisteria	WEWO	Wisteria	Foliar, Cut Stump
Summer	June	Bamboo	HEBL	Bamboo	Foliar, Cut Stump, Tablets
Summer	July	126 Restoration unit	LAJA	Miscanthus, wisteria, lespedeza	Foliar, Cut Stump
Summer	August	Rattlebox EEP	CACR	Rattlebox	Hand pull
Summer	August	Silvergrass Parkwide	STMO	Miscanthus, wisteria, lespedeza	Foliar and mowing
Summer	August	Hydrilla Survey	ENRI	Hydrilla	Survey
Summer/ Fall	September	Bamboo	GORG	Bamboo	Foliar, Cut Stump
Fall	October	Fields edge	SACR	Privet, China berry, ToH	Foliar, Frill and Spray
Fall	September, October	Lower Haw	JORD	Autumn olive	Cut Stump
Fall	October	Gateway X mas tree fields	YEMO	ToH, rose, Miscanthus, bittersweet	Foliar, Frill and Spray
Fall	October, November	Aquatic veg survey	LAWA	Hydrilla	Survey

## SECTION 2. NATIVE TURF GRASSES

The North Carolina Biodiversity Project - a collaboration between DPR, the Natural Heritage Program (NHP), and volunteers – has identified native grasses in North Carolina along with state rank of imperilment likelihood along with state and federal legal status. Table 3 describes native grasses to North Carolina that may potentially be suitable as substitutes for non-native turf grass using the following criteria:

1. The species is not federally or state designated as Endangered, Threatened, of Special Concern, Significantly Rare or on the State Watch List; and
2. The species is ranked S2 or higher by NHP.

*This list requires further study to identify species best suited for slope and erosion stabilization and could be implemented at the scale required to substitute non-native turf grass.*

**Table 3. North Carolina Native Grasses not Considered Protected or Rare**

Scientific Name	Common Name	State Rank	Global Rank
<i>Agrostis eliottiana</i>	Elliott's Bentgrass	S3?	G5
<i>Agrostis hyemalis</i>	Winter Bentgrass	S5	G5
<i>Agrostis perennans</i>	Upland Bentgrass	S5	G5
<i>Agrostis scabra</i>	Rough Bentgrass	[S4?]	G5
<i>Alopecurus carolinianus</i>	Carolina Foxtail	S4	G5
<i>Andropogon cretaceus</i>	Chalky Bluestem	[S3S4]	GNR [G3G5]
<i>Andropogon gerardi</i>	Big Bluestem	S4	G5
<i>Andropogon glomeratus</i>	Bushy Bluestem	S5	G5
<i>Andropogon gyrans</i>	Elliott's Bluestem	[S5]	G5
<i>Andropogon hirsutior</i>	Hairy Bluestem	S5	G5T5 [G5]
<i>Andropogon tenuispathus</i>	Maritime Bluestem	S5	G5T5 [G5]
<i>Andropogon ternarius</i>	Splitbeard Bluestem	S5	G5
<i>Andropogon virginicus</i>	Broomsedge	S5	G5
<i>Andropogon virginicus</i> var. <i>virginicus</i>	Broomsedge	S5	G5T5
<i>Anthenantia villosa</i>	Green Silkyscale	S3	G4G5
<i>Aristida curtissii</i>	Curtiss's Three-awn	S3	G5T5 [G5]
<i>Aristida dichotoma</i>	Churchmouse Three-awn	S5	G5
<i>Aristida lanosa</i>	Woollysheath Three-awn	S3?	G5
<i>Aristida longespica</i>	Southeastern Slimspike Three-awn	S5	G5
<i>Aristida oligantha</i>	Prairie Three-awn	S5	G5
<i>Aristida palustris</i>	Longleaf Three-awn	S3	G4

<i>Aristida purpurascens</i>	Arrowfeather Three-awn	S5	G5
<i>Aristida stricta</i>	Carolina Wiregrass	S4	G4 [G5]
<i>Aristida tuberculosa</i>	Seaside Three-awn	S3	G5
<i>Aristida virgata</i>	Wand-like Three-awn	S4	G5T4T5 [G4G5]
<i>Arundinaria appalachiana</i>	Hill Cane	S4	G4
<i>Arundinaria gigantea</i>	Giant Cane	S5	G5
<i>Arundinaria tecta</i>	Switch Cane	S5	G5
<i>Avenella flexuosa</i>	Wavy Hairgrass	S3	G5
<i>Axonopus fissifolius</i>	Common Carpetgrass	S4?	G5
<i>Axonopus furcatus</i>	Big Carpetgrass	S3	G5
<i>Brachyelytrum erectum</i>	Bearded Shorthusk	S4	G5
<i>Bromus pubescens</i>	Hairy Woodland Brome	S4	G5
<i>Calamagrostis breviligulata</i>	American Beach-grass	S3	G5
<i>Cenchrus longispinus</i>	Longspine Sandbur	S4?	G5
<i>Cenchrus spinifex</i>	Coastal Sandspur	S4	G5
<i>Cenchrus tribuloides</i>	Dune Sandspur	S3	G5
<i>Chasmanthium latifolium</i>	River Oats	S4	G5
<i>Chasmanthium laxum</i>	Slender Spikegrass	S4	G5
<i>Chasmanthium sessiliflorum</i>	Longleaf Spikegrass	S3	G5
<i>Chasmanthium sessiliflorum</i> var. <i>sessiliflorum</i>	Longleaf Spikegrass	S3	G5T5
<i>Cinna arundinacea</i>	Sweet Woodreed	S5	G5
<i>Coleataenia anceps</i>	Beaked Panicgrass	S5	[G5]
<i>Coleataenia anceps</i> ssp. <i>anceps</i>	Beaked Panicgrass	[S5]	G5TNR
<i>Coleataenia anceps</i> ssp. <i>rhizomata</i>	Small Beaked Panicgrass	[S3?]	G5TNR
<i>Coleataenia longifolia</i>	Long-leaved Panicgrass	S4	G5T5? [G5?]
<i>Coleataenia longifolia</i> ssp. <i>combsii</i>	Combs' Long-leaved Panicgrass	[S2]	[G5T5?]
<i>Coleataenia longifolia</i> ssp. <i>longifolia</i>	Long-leaved Panicgrass	[S3]	G5T5?
<i>Coleataenia rigidula</i>	Redtop Panicgrass	S4S5	G5T5? [G5?]
<i>Coleataenia rigidula</i> ssp. <i>condensa</i>	Dense Redtop Panicgrass	[S3]	G5T5?
<i>Coleataenia rigidula</i> ssp. <i>rigidula</i>	Redtop Panicgrass	[S4S5]	G5T5?
<i>Coleataenia stipitata</i>	Stalked Panicgrass	S4?	G5T4T5 [G5]
<i>Ctenium aromaticum</i>	Toothache Grass	S4	G5
<i>Danthonia compressa</i>	Flattened Oatgrass	S3	G5
<i>Danthonia sericea</i>	Silky Oatgrass	S5	G5?
<i>Danthonia spicata</i>	Poverty Oatgrass	S5	G5
<i>Dichantherium aciculare</i>	Needleleaf Witchgrass	S4?	G5
<i>Dichantherium acuminatum</i>	Woolly Witchgrass	S5	G5
<i>Dichantherium acuminatum</i> var. <i>acuminatum</i>	Woolly Witchgrass	S5?	G5T5

<i>Dichanthelium acuminatum</i> var. <i>fasciculatum</i>	Western Woolly Witchgrass	S5	G5TNR
<i>Dichanthelium acuminatum</i> var. <i>lindheimeri</i>	Lindheimer's Witchgrass	SU	G5T5
<i>Dichanthelium angustifolium</i>	Narrowleaf Witchgrass	[S4S5]	G5
<i>Dichanthelium arenicoloides</i>	Sandy Woods Witchgrass	[S3?]	GNR
<i>Dichanthelium boscii</i>	Bosc's Witchgrass	S5	G5
<i>Dichanthelium chamaelonche</i>	Carpet Witchgrass	[S3]	GNR
<i>Dichanthelium clandestinum</i>	Deer-tongue Witchgrass	S4	G5? [G5]
<i>Dichanthelium columbianum</i>	American Witchgrass	S3	G5T5 [G5]
<i>Dichanthelium commutatum</i>	Variable Witchgrass	S5	G5
<i>Dichanthelium commutatum</i> subsp. <i>ashei</i>	Variable Witchgrass	[S5]	G5TNR
<i>Dichanthelium commutatum</i> subsp. <i>commutatum</i>	Variable Witchgrass	[S5]	G5TNR
<i>Dichanthelium consanguineum</i>	Blood Witchgrass	S4	G5
<i>Dichanthelium depauperatum</i>	Starved Witchgrass	S4	G5
<i>Dichanthelium dichotomum</i>	Cypress Witchgrass	S5	G5
<i>Dichanthelium dichotomum</i> var. <i>dichotomum</i>	Cypress Panicgrass	S5	G5TNR
<i>Dichanthelium dichotomum</i> var. <i>nitidum</i>	Shining Witchgrass	[S3S4]	G5TNA
<i>Dichanthelium ensifolium</i>	Sword-leaf Witchgrass	S4	G4
<i>Dichanthelium filiramum</i>	Hairy Needleleaf Witchgrass	[S3?]	GNR
<i>Dichanthelium latifolium</i>	Broadleaf Witchgrass	S3	G5
<i>Dichanthelium laxiflorum</i>	Open-flower Witchgrass	S5	G5
<i>Dichanthelium leucothrix</i>	Rough Witchgrass	S3?	G4?Q
<i>Dichanthelium longiligulatum</i>	Coastal Plain Witchgrass	S3?	G4G5Q
<i>Dichanthelium lucidum</i>	Bog Witchgrass	[S4S5]	G4 [G4G5]
<i>Dichanthelium mattamuskeetense</i>	Mattamuskeet Witchgrass	[S4]	G4?
<i>Dichanthelium meridionale</i>	Matting Witchgrass	[S3?]	G5
<i>Dichanthelium microcarpon</i>	Small-fruited Witchgrass	[S5?]	GNR
<i>Dichanthelium oligosanthes</i>	Heller's Witchgrass	S3?	G5
<i>Dichanthelium oligosanthes</i> var. <i>oligosanthes</i>	Heller's Witchgrass	S3?	G5T5?
<i>Dichanthelium ovale</i>	Eggleaf Witchgrass	S2S3	G5
<i>Dichanthelium ovale</i> var. <i>addisonii</i>	Commons' Witchgrass	S2S3	G5T5
<i>Dichanthelium ovale</i> var. <i>ovale</i>	Eggleaf Witchgrass	S2S3	G5T5
<i>Dichanthelium patentifolium</i>	Spreadleaf Witchgrass	SU	GNR
<i>Dichanthelium polyanthes</i>	Many-flowered Witchgrass	S5	GNR
<i>Dichanthelium portoricense</i>	Puerto Rican Witchgrass	[S4]	G5
<i>Dichanthelium portoricense</i> ssp. <i>patulum</i>	Nash's Witchgrass	S5	G5
<i>Dichanthelium portoricense</i> ssp. <i>portoricense</i>	Puerto Rican Witchgrass	[S4?]	G5TNR
<i>Dichanthelium ravenelii</i>	Ravenel's Witchgrass	S3	G5
<i>Dichanthelium scabriusculum</i>	Woolly Witchgrass	S4?	G4 [G5]

<i>Dichanthelium scoparium</i>	Velvet Witchgrass	S5	G5
<i>Dichanthelium sphaerocarpon</i>	Roundseed Witchgrass	S5	G5
<i>Dichanthelium strigosum</i>	Rough-hair Witchgrass	S2S3	G5
<i>Dichanthelium strigosum</i> var. <i>leucoblepharis</i>	Rough-hair Witchgrass	S2?	G5T3T5
<i>Dichanthelium strigosum</i> var. <i>strigosum</i>	Rough-hair Witchgrass	[S3]	G5T5
<i>Dichanthelium tenue</i>	White-edge Witchgrass	S4?	G4G5
<i>Dichanthelium villosissimum</i>	Whitehair Witchgrass	S4	G5
<i>Dichanthelium villosissimum</i> var. <i>villosissimum</i>	Whitehair Witchgrass	S4	G5T5
<i>Dichanthelium yadkinense</i>	Spotted-sheath Witchgrass	S4?	GNR
<i>Digitaria ciliaris</i>	Southern Crabgrass	S5	G5
<i>Digitaria filiformis</i>	Slender Crabgrass	S4	G5
<i>Digitaria villosa</i>	Shaggy Crabgrass	S4	G5
<i>Dinebra panicea</i>	Red Sprangletop	S3	G5
<i>Distichlis spicata</i>	Seashore Saltgrass	S4	G5
<i>Echinochloa muricata</i>	American Barnyard-grass	S4?	G5
<i>Echinochloa walteri</i>	Coast Cockspur-grass	S3S4	G5
<i>Elymus glabriflorus</i>	Southeastern Wild-rye	S4?	G5
<i>Elymus hystrix</i>	Eastern Bottlebrush-grass	S4	G5
<i>Elymus macgregorii</i>	Early Wild-rye	S3?	G5
<i>Elymus villosus</i>	Silky Wild-rye	S2?	G5
<i>Elymus virginicus</i>	Virginia Wild-rye	S5	G5
<i>Eragrostis capillaris</i>	Lace Lovegrass	S4	G5
<i>Eragrostis hirsuta</i>	Bigtop Lovegrass	S5	G5
<i>Eragrostis hypnoides</i>	Teal Lovegrass	S2?	G5
<i>Eragrostis pectinacea</i>	Tufted Lovegrass	[S4]	G5
<i>Eragrostis refracta</i>	Coastal Lovegrass	S4	G5
<i>Eragrostis spectabilis</i>	Purple Lovegrass	S5	G5
<i>Erianthus alopecuroides</i>	Silver Plumegrass	S4	G5
<i>Erianthus coarctatus</i>	Compressed Plumegrass	[S4?]	G5?
<i>Erianthus contortus</i>	Bent-awn Plumegrass	S4	G5
<i>Erianthus giganteus</i>	Sugarcane Plumegrass	S4	G5
<i>Erianthus strictus</i>	Narrow Plumegrass	S3S4	G5
<i>Eustachys petraea</i>	Pinewoods Fingergrass	S3	G5
<i>Festuca octoflora</i>	Six-weeks Fescue	S4	G5
<i>Festuca octoflora</i> var. <i>octoflora</i>	Slender Eight-flowered Fescue	S4?	G5T5
<i>Festuca octoflora</i> var. <i>tenella</i>	Slender Eight-flowered Fescue	S4?	G5T5
<i>Festuca paradoxa</i>	Clustered Fescue	S4	G5

<i>Festuca rubra</i>	Red Fescue	[S3S4]	G5
<i>Festuca sciurea</i>	Squirrel-tail Fescue	S3	G5
<i>Festuca subverticillata</i>	Nodding Fescue	[S5]	G5
<i>Glyceria melicaria</i>	Slender Mannagrass	S3	G5
<i>Glyceria obtusa</i>	Atlantic Mannagrass	S2	G5
<i>Glyceria septentrionalis</i>	Floating Mannagrass	S3	G5
<i>Glyceria striata</i>	Fowl Mannagrass	S5	G5
<i>Glyceria striata</i> var. <i>striata</i>	Fowl Mannagrass	S5	G5T5
<i>Greeneochloa coarctata</i>	Nuttall's Reedgrass	S4	G5
<i>Gymnopogon ambiguus</i>	Bearded Skeleton-grass	S5	G4 [G5]
<i>Gymnopogon brevifolius</i>	Shortleaf Skeleton-grass	S4	G5
<i>Hordeum pusillum</i>	Little Barley	S5	G5
<i>Hymenachne hemitoma</i>	Maidencane	S2S3	G5?
<i>Kellochloa verrucosa</i>	Warty Panicgrass	S4	G4 [G5]
<i>Leersia hexandra</i>	Southern Cutgrass	S2S3	G5
<i>Leersia oryzoides</i>	Rice Cutgrass	S5	G5
<i>Leersia virginica</i>	White Cutgrass	S5	G5
<i>Leptoloma cognata</i>	Fall Witchgrass	S5?	G5
<i>Melica mutica</i>	Two-flower Melicgrass	S5	G5
<i>Mnesithea rugosa</i>	Wrinkled Jointgrass	S3	G5
<i>Muhlenbergia capillaris</i>	Hair-awn Muhly	S3	G5
<i>Muhlenbergia expansa</i>	Cut-over Muhly	S4	G5
<i>Muhlenbergia frondosa</i>	Wirestem Muhly	S3	G5
<i>Muhlenbergia schreberi</i>	Nimblewill	S5	G5
<i>Muhlenbergia sericea</i>	Dune Hairgrass	S3	G5?
<i>Muhlenbergia tenuiflora</i>	Slim-flower Muhly	S3?	G5
<i>Panicum amarum</i>	Bitter Panicgrass	S3	G5
<i>Panicum capillare</i>	Old-witch Panicgrass	S4	G5
<i>Panicum dichotomiflorum</i>	Fall Panicgrass	S5	G5
<i>Panicum dichotomiflorum</i> var. <i>dichotomiflorum</i>	Fall Panicgrass	[S5]	G5T5
<i>Panicum philadelphicum</i>	Philadelphia Panicgrass	[S4]	G5
<i>Panicum philadelphicum</i> ssp. <i>gattingeri</i>	Gattinger's Panicgrass	[S2?]	[G5T4]
<i>Panicum philadelphicum</i> ssp. <i>philadelphicum</i>	Philadelphia Panicgrass	[S4]	G5TNR
<i>Panicum virgatum</i>	Switchgrass	S5	G5
<i>Panicum virgatum</i> var. <i>cubense</i>	Blunt Switchgrass	[S4S5]	G5TNR
<i>Panicum virgatum</i> var. <i>spissum</i>	Tufted Switchgrass	[S3S4]	G5TNR
<i>Paspalum boscianum</i>	Bull Crowngrass	S4	G5
<i>Paspalum distichum</i>	Knotgrass	S3? [	G5

<i>Paspalum floridanum</i>	Florida Paspalum	S5	G5
<i>Paspalum laeve</i>	Field Crowngrass	[S5]	G4G5 [G5]
<i>Paspalum laeve var. laeve</i>	Field Crowngrass	[S5]	G4G5T4T5
<i>Paspalum setaceum</i>	Thin Crowngrass	S5	G5
<i>Paspalum setaceum var. ciliatifolium</i>	Thin Paspalum	[S4]	G5T5
<i>Paspalum setaceum var. muhlenbergii</i>	Thin Paspalum	S5	G5TNR
<i>Paspalum setaceum var. setaceum</i>	Thin Paspalum	[S4S5]	G5T5
<i>Phalaris arundinacea</i>	Reed Canary-grass	S4	G5
<i>Piptochaetium avenaceum</i>	Blackseed Needlegrass	[S5]	G5
<i>Poa alsodes</i>	Grove Bluegrass	S4	G4G5
<i>Poa autumnalis</i>	Autumn Bluegrass	S4	G5
<i>Poa chapmaniana</i>	Chapman's Bluegrass	S3	G5
<i>Poa cuspidata</i>	Early Bluegrass	S4	G5
<i>Poa sylvestris</i>	Woodland Bluegrass	S2S3	G5
<i>Sacciolepis striata</i>	American Cupscale	S3S4	G5
<i>Schizachyrium scoparium</i>	Little Bluestem	S5	G5
<i>Schizachyrium scoparium ssp. scoparium</i>	Little Bluestem	S5	G5T5
<i>Setaria corrugata</i>	Coastal Bristlegrass	S2S3	G5?
<i>Setaria magna</i>	Giant Bristlegrass	S2S3	G4G5
<i>Setaria parviflora</i>	Marsh Bristlegrass	S5	G5
<i>Sorghastrum elliottii</i>	Slender Indiangrass	S4	G5
<i>Sorghastrum nutans</i>	Yellow Indiangrass	S5	G5
<i>Spartina alterniflora</i>	Saltmarsh Cordgrass	S5	G5
<i>Spartina cynosuroides</i>	Big Cordgrass	S5	G5
<i>Spartina patens</i>	Saltmeadow Cordgrass	S5	G5
<i>Sphenopholis nitida</i>	Shiny Wedgescale	S4	G5
<i>Sphenopholis obtusata</i>	Prairie Wedgescale	S4	G5
<i>Sphenopholis pensylvanica</i>	Swamp Wedgescale	S3	G4 [G5]
<i>Sporobolus clandestinus</i>	Rough Dropseed	S4	G5
<i>Sporobolus junceus</i>	Pineywoods Dropseed	S4	G5
<i>Sporobolus vaginiflorus</i>	Poverty Dropseed	S3	G5
<i>Steinchisma hians</i>	Gaping Grass	S4?	G5
<i>Stenotaphrum secundatum</i>	St. Augustine Grass	S2	G5
<i>Tridens flavus</i>	Tall Redtop	S5	G5
<i>Triplasis americana</i>	Perennial Sandgrass	S3?	G5
<i>Triplasis purpurea</i>	Purple Sandgrass	S3?	G4G5
<i>Tripsacum dactyloides</i>	Eastern Gamagrass	S4	G5
<i>Uniola paniculata</i>	Sea Oats	S4	G5

Zizaniopsis miliacea	Southern Wild-rice	S3?	G5
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## Explanation of State and Global Ranking Codes

### State Rank

State ranks are designated by the North Carolina Natural Heritage Program (NHP), following methodology and guidance from NatureServe. This approach allows for consistency among many programs and across state lines. The definitions provided below follow the NatureServe Subnational Conservation Status Definitions published by NatureServe.

- S1 = Critically Imperiled: At very high risk of extirpation in North Carolina due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2 = Imperiled: At high risk of extirpation in North Carolina due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3 = Vulnerable: At moderate risk of extirpation in North Carolina due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4 = Apparently Secure: At a fairly low risk of extirpation in North Carolina due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- S5 = Secure: At very low or no risk of extirpation in North Carolina due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.
- S#S# = Range Rank: A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
- S#? = Inexact Numeric Rank: Denotes inexact numeric rank.

### Global Rank

Global ranks are designated by NatureServe and are provided by the NHP for information only. For the most current global ranks, please consult the NatureServe Explorer. The definitions provided below follow the Definitions of NatureServe Global Conservation Status Definitions.

- G1 = Critically Imperiled: At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
- G2 = Imperiled: At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

- G3 = Vulnerable: At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- G4 = Apparently Secure: At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- G5 = Secure: At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats. G#G# = Range Rank: A numeric range rank (e.g., G2G3, G1G3) is used to indicate uncertainty about the exact imperilment of a taxon or ecosystem type.
- G#? = Inexact Numeric Rank: Denotes inexact numeric rank.

## Report Citations

LeGrand, H., B. Sorrie, and T. Howard. 2026. Vascular Plants of North Carolina [Internet]. Raleigh (NC): North Carolina Biodiversity Project and North Carolina State Parks. Available from <https://auth1.dpr.ncparks.gov/flora/index.php>.

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