

Noteworthy Exotic Plant Species of Mississippi

Purpose of the list

This list of Noteworthy Exotic Plant Species of Mississippi includes important plant species known to occur in the state of Mississippi but whose native ranges lie outside the state.

The list includes information about the potential invasion risk posed by each species and is meant to serve as an educational tool to aid agencies, water and watershed managers, and private landowners in making management decisions.

Information provided includes the real or perceived risk that each species presents for degradation of natural habitats or for economic impacts on agriculture, horticulture, and turf management within the state of Mississippi or in immediately neighboring states.

This list was developed by the Mississippi Exotic Pest Plant Council, in cooperation with regional botanists and other stakeholders.

The list can be found at the following locations on the internet.

Mississippi Exotic Pest Plant Council: www.se-eppc.org/mississippi/

Invasive Plant Atlas of the Mid-South: www.gri.msstate.edu/ipams/MSExotics.php

Criteria for evaluating plant species for inclusion on the MS-EPPC Mississippi Exotic Plant Species List

These criteria are modified from those provided by the Alabama Invasive Plant Council and the Tennessee EPPC.

Each species on the list will be placed into one of four risk categories, described below. This is in accordance with procedures employed by the other SE-EPPC states. This information can be provided in column "D" in the Excel file.

Category 1:

- 1) The plant species, sub-species, or variety is non-native to Mississippi.
- 2) The plant has the potential for rapid growth, high seed or propagule production and dispersal, and establishment in natural communities or in managed areas where it is not desired.
- 3) The plant is able or known to be able to out-compete other species in plant communities or cropping systems, thereby impacting native plant biodiversity, ecosystem functions, or crop productivity.
- 4) The plant persists in free living infestations within Mississippi, without cultivation or other human assistance.
- 5) The plant is widespread and occurs in three or more MS physiographic regions, which are:
 1. Tombigbee Hills
 2. Blackland Prairie/Blackbelt
 3. North Central Hills
 4. Loess Hills
 5. Alluvial Valley (Delta)
 6. Jackson Prairies
 7. South Central Hills
 8. Pine Belt
 9. Coastal Zone
 10. Barrier IslandsA map of these physiographic regions is included; these are as provided by the Mississippi Automated Resource Information System (MARIS).
- 6) The plant is known to occur in dense stands of numerous individuals in frequent infestations.

Category 2:

- 1) The plant meets criteria 1-4 for a Category One species.
- 2) The plant occurs within one or more cultural uses (row cropping, silviculture, etc.) and in more than one MS physiographic region.
- 3) The plant occurs as scattered individuals or widely scattered dense infestations; i.e., *not* in frequent dense stands.

Category 3:

- 1) The plant meets criteria 1-3 for a Category One species.
- 2) The plant has recently appeared as free living populations within Mississippi, **or** The plant is invasive in nearby states but its status in Mississippi is unknown or unclear, and it has the potential to become invasive in Mississippi, based on its biology and its colonization history elsewhere, especially in the southern US.

Watch list:

- 1) The plant meets criteria 1-3 for a Category One species.
- 2) The plant is cultivated in Mississippi, but is not known to occur in the state without human assistance, i.e., not in free-living populations.
- 3) The plant has a documented history of invasiveness in other areas of the Southeast and/or is recognized as an invasive plant in parts of the world having habitats similar to those in the Southeast.

If species are ranked in Categories 1-3 in an adjacent state and the review process yields no information specific to Mississippi, the species will be assigned a corresponding risk category for the Mississippi List.

We will remove a species from the list if a majority of reviewers suggest such is merited and the species is not ranked in Categories 1-3 in an adjacent state. Rankings in adjacent states will take precedence over species removal in all cases, unless quantitative support is provided to the contrary.

Mississippi Physiographic Regions



We also want to provide information for each species on potential risk level in each of five risk categories. With the exception of Economic Impact, these are taken directly from the NatureServe Invasive Species Assessment Protocol (version 1).

In columns “E”-“I” of the Excel file, please provide a ranking of 0-3 for each risk category, corresponding to your best estimate of the risk posed by each species with which you are familiar. These values would correspond with a perceived risk level of Insignificant (0), Low (1), Medium (2), or High (3), given the types of considerations listed under each category below.

I. Ecological Impact

- Impact on Ecosystem Processes and System-Wide Parameters
- Impact on Ecological Community Structure
- Impact on Ecological Community Composition
- Impact on Individual Native Plant or Animal Species
- Conservation Significance of the Communities and Native Species Threatened

II. Current Distribution and Abundance

- Current Range Size in Region
- Proportion of Current Range Where Species Is Negatively Impacting Biodiversity
- Proportion of Region’s Biogeographic Units Invaded
- Diversity of Habitats or Ecological Systems Invaded in Region

III. Trend in Distribution and Abundance

- Current Trend in Total Range Within Region
- Proportion of Potential Range Currently Occupied
- Long-Distance Dispersal Potential Within Region
- Local Range Expansion or Change in Abundance
- Inherent Ability to Invade Conservation Areas and Other Native Species Habitats
- Similar Habitats Invaded Elsewhere
- Reproductive Characteristics

IV. Management Difficulty

- General Management Difficulty
- Minimum Time Commitment
- Impacts of Management on Native Species
- Accessibility of Invaded Areas

V. Economic Impact

- Contributes to decreased yield in agronomic systems
- Contributes to decreased vigor in turf or horticultural systems
- Costly management necessary for eradication
- Multiple iterations of management necessary for eradication
- Limited options for restoring formerly infested lands to productive state