

# **Nebraska Invasive Species Council**

## **Adaptive Management Plan 2021**

By: The Nebraska Invasive Species Council

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## Introduction

Invasive species, including plants, animals, insects, aquatics and pathogens, are a threat to Nebraska's economy and environment. An invasive species is defined for this plan as a species that is not indigenous to the ecosystem under consideration and its introduction does or is likely to cause economic or environmental harm or harm to human health. These species can be any type of organism: plant, fish, invertebrate, mammal, bird, disease or pathogen. Citizens pay millions of dollars to prevent, eradicate, and control invasive species each year. These invaders threaten our native species by outcompeting them for resources and habitat. Some invasive species even impact human health directly by vectoring diseases. Nonnative invasive species are constantly making their way into Nebraska often unintentionally introduced through the everyday activities of citizens—hiding in firewood, attached to boats and other gear, or concealed in merchandise. Sometimes they are deliberately introduced and in some cases they make it here under their own power. However, once they arrive and become established, they have the potential to change Nebraska's landscape and economy forever.

The purpose of this adaptive management plan is to provide a framework to guide efforts to minimize the harmful ecological, economic and human health impacts of nonnative invasive species through the prevention and management of their introduction, expansion and dispersal into, within and from Nebraska. This document outlines goals and actions identified by the Nebraska Invasive Species Council (NISC) as critical to protecting commonwealth resources. It will not be possible to prevent every nonnative invasive species from entering the state, or to eradicate all of those already present, but this plan will aid Nebraska in decreasing the multitude of harmful effects posed by invasive species by coordinating efforts among council members.

The NISC was created in 2012 and is codified Nebraska Revised Statute 37-1403 through 37-1406 which can be accessed [here](#). The NISC is comprised of some Governor appointed representatives. Members include natural resource managers, policy makers, and researchers engaged in abating the introduction and spread of nonnative invasive species as well as public interest members (see Appendix 1). Nebraska Revised Statute 37-1403 through 37-1406 charges the council with the following:

- Recommend action to minimize the effects of harmful invasive species on Nebraska's citizens in order to promote the economic and environmental well-being of the state.
- Develop and periodically update a statewide adaptive management plan for invasive species.
- Serve as a forum for discussion, identification, and understanding of invasive species issues.
- Facilitate the communication, cooperation and coordination of local, state, federal, private and nongovernmental entities for the prevention, control and management of invasive species.
- Assist with public outreach and awareness of invasive species issues.
- Provide information to the Legislature for decision making, planning, and coordination of invasive species management and prevention.

- Develop and update an invasive species adaptive management plan.

Invasive species do not recognize jurisdictional boundaries, thereby creating a need for enhanced coordination between local, state, regional, and federal entities to respond to new discoveries effectively and expediently. There are a growing number of invasive species that fall outside the traditional role that state agencies have in protecting the resources of the commonwealth. This adaptive management plan will aid in facilitating rapid, coordinated actions among state agencies, private industry, public stakeholders, and individual land owners engaged in preventing the introduction and spread of invasive species. This plan reflects the ongoing efforts of the NISC to develop a framework that identifies strategies and actions to minimize the impacts of nonnative invasive species and facilitate addressing species that fall outside of traditional jurisdictions. This plan will continue to evolve as new objectives, strategies, and recommendations are identified and as new information becomes available.

## **Adaptive Management Plan Goals & Initiatives**

### **1. Statewide coordination and intergovernmental cooperation**

**Goals:** Identify key personnel needed to coordinate invasive species issues among local, state, and federal agencies and organizations. Facilitate communication and coordination across jurisdictional boundaries to ensure that state policy effectively promotes the prevention, early detection, and control of nonnative invasive species in Nebraska.

**Background:** Invasive species programs require knowledgeable personnel and individuals to support them. The NISC is comprised of state and federal resource agency staff, University of Nebraska staff and members of other agencies (see Appendix 1). By increasing communication and coordination between these individuals we can create successful prevention, response and control efforts. Many gaps currently exist in the communication process. There is confusion even among state agencies about who to contact when unidentified organisms are discovered. State agencies typically have response procedures in place within their own organization, but those procedures are not always known to other agencies within the state or to the public.

#### **Actions:**

- Maintain a contact list detailing appropriate contacts for specific taxa of invasive species (i.e. contacts for invasive insect reports vs. invasives wildlife reports).
- Partner with neighboring states to share data and research to use effective control techniques on invasive species infestations.
- Partner with the National Invasive Species Council and regional invasive species panels in order to coordinate with national and regional programs and efforts.
- Expediently review, edit, revise and adopt laws, regulations, statutes, acts and/or quarantines that facilitate prevention, early detection and rapid response to introductions of invasive species.
- Support the formation and provide resources to locally based organizations working to control invasive species through various control efforts.

## **2. Prioritization of invasive species response and management**

**Goals:** Utilize risk assessments to prioritize invasive species management and expedite response to new introductions and infestations. Prioritize invasive species on which to focus control and anti-dispersal efforts, and, when feasible, control established invasive species that have significant impacts in Nebraska.

**Background:** Risk assessments is a science-based process commonly used to predict the potential establishment, spread, and impacts of invasive species. Risk assessments can be used to aid in prioritizing prevention, early detection and control and restoration efforts. Species-specific risk assessments already developed by experts elsewhere should be utilized. If unavailable, preliminary species-specific risk assessments should be developed to determine the threat level of the invasive species to the commonwealth. If needed, species-specific task forces should be formed to facilitate this process. Eradication should always be considered when an invasive species is first detected in a new area of the commonwealth. Unfortunately, the eradication of invasive species that are well established and widespread is generally not economically or environmentally feasible. Instead, long term management efforts that attempt to slow the rate of spread or suppress widespread populations, thus lessening environmental and economic impacts over time, should be considered.

**Actions:**

- Assess and utilize previously developed risk assessments from international, federal, state, and local sources to guide management and control efforts of invasive species and pathways in Nebraska.
- Use monitoring data collected within Nebraska, neighboring states, and elsewhere in the United States to formulate the development of risk assessments for invasive species and their pathways.
- Evaluate organisms sold in commercial trade that have the potential to persist in Nebraska outside of captivity or cultivation. Utilize studies from other states or organizations of invasives species which are traded and sold within Nebraska.
- Review ongoing management programs to increase program efficiency and routinely evaluate non-target impacts. Disseminate evaluations to relevant agencies, partners, and stakeholders in a timely fashion.
- Develop species-specific or location-specific action plans that include control measures.
- Support the development of control and containment techniques which include a comparison to the potential economic, environmental, and/or human health impacts of a “no action” alternative.
- Support the development of special use permits for control options that are not currently authorized in Nebraska.

- Facilitate coordination and cooperation on invasive species control efforts conducted by council member agencies and organizations.

### **3. Early detection and prevention of new invasive species through deliberate or unintentional introduction**

**Goals:** Identify, evaluate, and address pathways used by invasive species in order to minimize their introduction and spread into and throughout the state. Detect new introductions of invasive species quickly and control or contain target species before they can become permanently established in the state or move into areas in which they previously did not exist. Integrate restoration efforts whenever feasible into control and management activities as well as other activities which may disturb ecosystems and facilitate colonization by nonnative invasive species.

**Background:** Prevention, defined as the actions necessary to keep potentially invasive species from entering previously uninfested areas, should serve as the first line of defense as it is the most cost effective and least environmentally damaging approach. Once a species becomes established in an area, control will likely require significant and sustained expenditures. Early detection and rapid response can also slow the spread of invasive species established in one region from expanding into new areas of the state. The term restoration encompasses the activities required to reinstate ecosystem structure and function in habitats that have been disrupted by invasive species. With effort, ecosystems can sometimes recover following the eradication or control of invasive species. Integration of restoration efforts into control and management plans is recommended because areas may become re-infested by the same or additional nonnative invasive species.

#### **Actions:**

- Review existing programs and policies which address the prevention of invasive species and the mitigation of pathways in Nebraska and identify opportunities for improving their effectiveness.
- Improve regional coordination in the development and implementation of risk management partnerships at all ports of entry and other suitable pathway points.
- Encourage state agencies, industry, and user groups to adopt sound nonnative invasive species prevention practices for their own operations.
- Encourage immediate preemptive action when new pathways are identified.
- Identify a short list of invasive species considered to be the most significant or harmful to the state. Utilize existing lists created by resources agencies and organizations (i.e. the annual Nebraska Weed Watch List).
- Create watch lists of invasive species, utilizing existing lists and resources, that are not yet known or of limited distribution in the state.

- Establish a simple, coordinated reporting system for managing invasive species sightings and disseminate data to relevant agencies, partners, and stakeholders in a timely fashion.
- Identify and involve stakeholders in early detection and rapid response planning efforts.
- Identify and support personnel training needs and interagency partnerships for successful early detection and rapid response operations.
- Identify gaps in existing early detection efforts.
- Review contracts, partnerships and projects to incorporate restoration measures wherever possible to prevent colonization by invasive species.
- To utilize their expertise and resources, create a master directory of existing efforts and key groups that focus on restoration of native habitats.

#### **4. Inventory and monitoring of invasive species**

**Goals:** Compile information on survey and monitoring efforts of invasive species in Nebraska.

**Background:** Currently in Nebraska, data on invasive species are collected by various agencies or organizations to meet their objectives; the data are often not easily accessible to others who may have a need for it. This goal will create a list of contact information for the program managers, researchers and personnel who work with the various invasive species in Nebraska. The National Invasive Species Council is charged with establishing a coordinated information sharing system that emphasizes the use of the internet for documenting, evaluating and monitoring invasive species. To assist in the national effort, the Council will need to inventory the various databases that already exist within the state and to facilitate the coordination of this data with federal, state, and non-governmental organizations.

**Actions:**

- Maintain up to date range information on invasive species on the NISC website [here](#).
- Integrate various data sets create maps of ranges.

#### **5. Identification of research and information gaps**

**Goal:** Support research efforts on invasive species issues and impacts in Nebraska and work with partners to facilitate the dissemination of data and information generated from these efforts.

**Background:** New invasions of invasive species often require novel ways to effectively address them. Continued research on the impacts of invasive species on biodiversity and on control and eradication methodologies specific to the geography, climate and ecology of Nebraska is needed. Because of the lack of data about invasive species in the state, research projects ranging from basic investigations with broad application to highly targeted applied efforts are required to enable invasive species programs and actions.

**Actions:**

- Encourage and support collaboration on scientific research between state and federal agencies, universities, and other non-governmental organizations.
- Facilitate the collection and dispersal of information, research and data about Nebraska invasive species.
- Work with regional invasive species coordinators and agencies to obtain research findings on invasive species of concern in Nebraska and planned studies.

## 6. Public outreach and education

**Goal:** Educate the general public and key target audiences about nonnative invasive species issues so that they do not facilitate the introduction and spread of these organisms through their activities. Provide the public with information on identification and control methods for invasive species. Provide the public with a reporting tool to identify and control invasive species.

**Background:** Education is critical to preventing and limiting the spread of invasive species. Many people are unaware that their own actions can result in the introduction and spread of these organisms. Raising awareness of the problem is a critical component of any prevention, early detection, control, or monitoring program of invasive species. Persuading people to act in ways that reduce the threats posed by invasive species and to avoid contributing to the problem is the key to long-term success in invasive species programs. Providing the public with an information source of how to identify invasive species and report them in a simple matter will increase the ability to find new infestations.

**Actions:**

- Develop unified messages regarding invasive species prevention and control.
- Develop educational materials and distribute them to target audiences.
- Support and encourage local, community based programs that target invasive species.
- Encourage the development of training materials for volunteer programs that can assist with invasive species prevention, identification, monitoring, and control with the appropriate oversight.
- Encourage citizen groups in Nebraska to become active in outreach and education about invasive species. They should be encouraged to address their legislators about concerns in their communities.
- Support the development of training programs to certify field staff in identification and reporting of invasive species. Eventually, this training should be required for all appropriate state agency field staff.

- Develop and maintain a website which has invasive species identification, control and reporting components targeted at the public. Access this website here: <http://neinvasives.com/>.
- Use existing education materials in outreach efforts and become partners with other organizations (i.e. Play, Clean, Go and Don't Move Firewood).

## **7. Identification of funding and resources available for invasive species prevention, control and management**

**Goal:** Work with the Governor's office, Legislature, partners, industry, and federal entities to obtain funding for invasive species programs including control, education and research.

**Background:** Efforts to prevent the entry of and respond to newly detected invasive species are often greatly hindered by the lack of adequate funding. Prevention, the most economically and environmentally feasible approach to dealing with invasive species, requires funding to be effective. Early detection of new invasions and monitoring efforts require funding for equipment, personnel and training. Education and outreach require funding for implementation of successful social marketing campaigns and the development and distribution of materials.

**Actions:**

- Apply for grants and council members will work together to identify and obtain funding opportunities as they arise.
- When funding is available it should provide for the development and implementation of training for appropriate field staff, key stakeholders and volunteers in the identification and early detection of invasive species.
- Encourage and develop research funding sources.
- Make funding available for organizations that work in the restoration of damaged ecosystems.
- Work with other states and national groups to partner on grant applications and in joint projects to produce educational items and conduct research.

## **8. Recommendations for legislation regarding invasive species issues**

The Council does not have recommendations for legislation at this time. The Council will continue to monitor invasive species threats and work to address invasive species issues and advise the appropriate legislative committees and Governor if issues arise which warrant legislation or coordination.

## **Conclusion**

Management plans that are not dynamic quickly lose their usefulness due to the inherently changeable nature of invasive species issues. It is the responsibility of the Nebraska Invasive Species Advisory Council to review and update this plan annually and provide any revisions to the Governor and the Legislative Agricultural Committee within three years. The Nebraska Invasive Species Advisory Council will continue to meet monthly and provide the Legislature and other decisions makers with information to develop legislation for invasive species prevention and control efforts. The council will work to comply with the actions detailed in this plan to coordinate efforts and expand invasive species education, research and monitoring in Nebraska. The council will form work groups if necessary to attend to specific invasive species concerns to work to plan and address them by implementing tasks and coordinate with the appropriate parties. The council will continue to provide the Governor and Legislative Agricultural Committee with an annual report of its initiatives, needs and accomplishments in invasive species monitoring, research and prevention efforts. The website housing information on the council (<http://neinvasives.com/>) will be maintained and updated as new invasive species arise or changes in ranges occur. The council will provide public outreach to engage the public to identify and report invasive species and take action to prevent their spread.

## Appendix 1. April 2021 Nebraska Invasive Species Council Members

<b>Voting Members</b>	
<b>Name</b>	<b>Agency/Affiliation</b>
Arnold Stuthman	Public Interest Member (Agricultural Interest)
Brent Meyer	Nebraska Weed Control Association
Craig Allen	University of Nebraska-Lincoln
John McGill	Public Interest Member (Agricultural Interest)
John Thorburn	Nebraska Association of Resources Districts
Jonathan Nikkila	Public Interest Member
Justin King	Nebraska Public Power District
Kevin Pope	Nebraska Coop Fish & Wildlife Research Unit, UNL
Kim Todd	Public Interest Member
Kristopher Stahr	Nebraska Game and Parks Commission
Mitch Coffin	Nebraska Department of Agriculture
Steven Jara	Nebraska Forest Service of the University of Nebraska
<b>Non-Voting Members</b>	
Brenda Densmore	US Geological Survey
Carmen Thomson	National Park Service, Midwest Region
Chris Helzer	The Nature Conservancy
Chris Vrtiska	Omaha Public Power District
Cindy Stuefer-Powell	USDA Animal and Plant Health Inspection Service
Gary Stone	University of Nebraska-Lincoln, Extension
Jeff Runge	US Fish & Wildlife Service
Jeremy Gehle	Department of Natural Resources
Joanne Grady	US Fish & Wildlife Service
Julie Van Meter	Nebraska Department of Agriculture
Kelsey Jolley	US Army Corps of Engineers
Lorrie Grueber	City of Lincoln Forester
Patrick Finigan	Omaha Public Power District
Ritch Nelson	USDA Nebraska Natural Resource Conservation Service
Tom Heatherly	Nebraska Department of Environment and Energy
TJ Walker	Nebraska Game and Parks Commission