

NEBRASKA INVASIVE SPECIES COUNCIL

2023 LEGISLATIVE REPORT

Report Recipients: Governor Jim Pillen and Members of the Agriculture and Natural Resources Committees of the Nebraska Legislature

Acting Council Coordinator: Kristopher Stahr

Aquatic Invasive Species Program Manager

Nebraska Game and Parks Commission

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Overview

This report was developed per the requirements outlined in Nebraska Statute 37-1406 (2). Legislative Bill 391 was passed by the Nebraska Unicameral on March 30, 2012, and signed into law by Governor Dave Heineman on April 10, 2012.

Nebraska Statute 37-1403 created the Nebraska Invasive Species Council (NISC), and Nebraska Statute 37-1404 charged it with the following objectives:

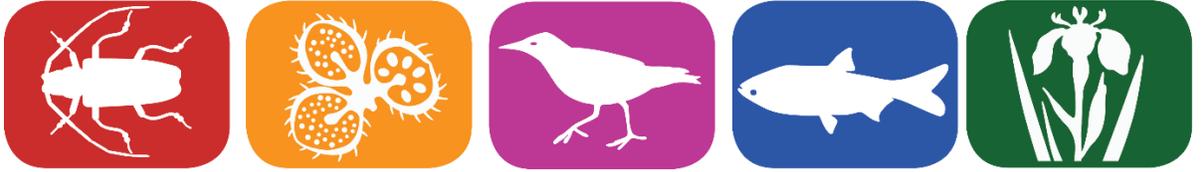
1. Recommend action to minimize the effects of harmful invasive species on Nebraska's citizens to promote the economic and environmental well-being of the state.
2. Develop and periodically update a statewide adaptive management plan for invasive species as described in Section 15 of this act.
3. Serve as a forum for discussion, identification, and understanding of invasive species issues.
4. Facilitate the communication, cooperation, and coordination of federal, state, local, private, and nongovernmental entities for the prevention, control, and management of invasive species.
5. Assist with public outreach and awareness of invasive species issues.
6. Provide information to the Legislature for decision-making, planning, and coordination of invasive species management and prevention.

This report provides an evaluation of progress made in the preceding year by NISC as called for in Nebraska Statute 37-1406 (2).

Report Submitted December 15, 2023

Voting Members (Governor Appointed)	
Name	Agency/Affiliation
Craig Allen	University of Nebraska-Lincoln
Steven Jara	Nebraska Forest Service of the University of Nebraska
Trevor Johnson	Nebraska Department of Agriculture
Justin King	Nebraska Public Power District
Brent Meyer, Chair	Nebraska Weed Control Association
Jonathan Nikkila	Public Interest Member (Non-Agricultural Interest)
Kevin Pope	Nebraska Cooperative Fish & Wildlife Research Unit
Dennis Schroeder	Public Interest Member (Agricultural Interest)
Kristopher Stahr	Nebraska Game and Parks Commission
Kimberly Stuhr	Public Interest Member (Agricultural Interest)
Arnie Stuthman	Public Interest Member (Agricultural Interest)
John Thorburn	Nebraska Association of Resources Districts
Kim Todd	Public Interest Member (Non-Agricultural Interest)
Non-Voting Members	
Natalia Bjorklund	Nebraska Department of Agriculture
Brenda Densmore	US Geological Survey- NE Water Science Center
Jeremy Gehle	Nebraska Department of Natural Resources
Lorrie Grueber	City of Lincoln
Chris Helzer	The Nature Conservancy
Kelsey Jolley	US Army Corps of Engineers
Mike Koenig	Omaha Public Power District
Ritch Nelson	Natural Resources Conservation Service
David Nielson	USDA Animal and Plant Health Inspection Service
Jeff Runge	US Fish and Wildlife Service
Gary Stone	University of Nebraska Extension
TJ Walker	Nebraska Game and Parks Commission
Jennifer Weisbrod	Pesticide Safety Education- UNL Extension

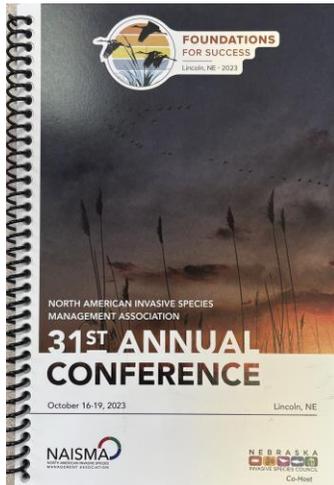
NEBRASKA



INVASIVE SPECIES COUNCIL

General NISC Activities

The NISC Coordinator position was vacated in March 2023. Per legislation, the Nebraska Game and Parks Commission provided support as the acting coordinator. A new NISC coordinator is anticipated to start in early 2024. The NISC continued to hold in-person and virtual meetings for members throughout 2023.



The NISC co-hosted the annual North American Invasive Species Management Association (NAISMA) conference in Lincoln on October 16-19, 2023. Over 300 invasive species professionals attended this conference representing 36 U.S. States, 4 Canadian Provinces, Italy, India, Switzerland, and the U.S. Virgin Islands. This conference required significant investment from NISC members and highlighted invasive species management efforts across Nebraska. NISC members were integral to the success of this conference by coordinating all facets including presentations, exhibitors, sponsorships, and field trips. As a testament to the outstanding work done by members, the NISC was presented the 2023 Cooperator Award by NAISMA.

Terrestrial Invasive Species Activities

Nebraska Department of Agriculture

The Nebraska Department of Agriculture (NDA) continued to administer the riparian vegetation management grant program in 2023. With \$2.7 million in funding for fiscal year 2022-2023 and \$706,000 for 2023-2024, significant work was done by weed management areas to improve water conveyance through the removal of invasive species. The primary focus was on chemical control of phragmites (*Phragmites australis*) in the floodplain of Nebraska's rivers and streams. Phragmites is a state-designated noxious weed that crowds out native species to form dense monocultures. In addition to phragmites control, grant recipients also conducted outreach on the importance of controlling invasive plants and operated cost-share programs for chemical and mechanical removal of invasive species. NDA looks forward to continuing this grant program in cooperation with the Riparian Vegetation Management Task Force and the Nebraska Invasive Species Council.

Nebraska Game and Parks Commission – Wildlife Division

During 2023, the Habitat Partners Section of the Wildlife Division of the Nebraska Game and Parks Commission (NGPC) worked with Conservation Partners and private landowners to implement a substantial amount of invasive species control. While some of this work took place on State Parks, State Wildlife Management Areas, and Natural Resource District properties, most of the work took place on privately owned properties, with the bulk of those being working lands utilized for livestock production. Work took place through various NGPC programs including the Nebraska Natural Legacy Project (targeting American burying beetles and other at-risk species), WILD Nebraska, “PR Grouse” (an in-house program looking to do management for Greater Prairie-chickens and Sharp-tailed Grouse) and “PR Quail” (similar program targeting Northern Bobwhites in SE Nebraska). In total, invasive species control was implemented in conjunction with our staff on 38,315 acres (impacting a minimum of 44,857 acres) with the following related statistics:

- 88 projects completed by 17 staff members.
- 77 private landowners located in 29 counties participated in projects.
- Break down by property type
 - State Parks – 850 acres treated.
 - State WMAs – 341.8 acres treated.
 - NRD properties – 79 acres treated.
 - Private lands – 37,015.2 acres treated.
- Break down by practice.
 - Invasive tree removal – 30,962.5 acres
 - Prescribed fire (to control invasive trees) – 6,535.5 acres.
 - Herbicide treatments (trees/shrubs) – 817 acres

The Management Section of the Wildlife Division is responsible for management of Wildlife Management Areas (WMA’s) open to public hunting, trapping, and angling. Along with noxious weed control, many dollars are spent controlling land and aquatic invasive plants and animals on these areas to promote diverse native habitats.

There are 290 WMA’s totaling approx. 180,000 acres across Nebraska. Section staff spend an average of \$1 million per year on noxious and invasive herbaceous species control.

Approximately a quarter of that is for noxious weeds and the rest goes toward things like eastern red cedar, smooth brome, reed canary and other invasive plant control that can negatively impact wildlife habitat. Dollars are spent for labor, herbicide, equipment, contracts, and training/certifications, etc. It’s difficult to put an exact number on total efforts because often there are dual purposes to projects, equipment, and contracts, etc.

Dollars spent during 2023 on weed control on Nebraska’s WMA’s:

- \$27,713.89 including 6,686.27 staff hours were reported for noxious weed control.
- \$750,000 minimum is spent on invasive plant and animal control annually on WMA’s.

The Nebraska Game and Parks Commission is obligated by state statute to control noxious weeds, like any other landowner. The Commission works closely with County Weed Authorities, Nebraska Department of Agriculture, Weed Management Area groups, other Partner agencies/organizations and neighbors to control noxious and invasive plants and animals to promote better wildlife habitat.

Additional notes of interest related to invasives species control:

- NGPC and several partners were awarded a \$4 million National Fish and Wildlife Foundation grant largely for invasive species control during 2023 that included funding for:
 - A Nebraska Grasslands Coordinator employed by Nebraska Grazing Lands Coalition that will help coordinate grassland conservation efforts across the state.
 - A Project Coordinator employed by the Sandhills Task Force
 - A Project Biologist position employed by the Northern Prairies Land Trust and housed within the Santee Sioux Nation to work on invasive species control/habitat management on tribal properties and adjacent properties in NE Nebraska
 - Support of The Nature Conservancy's ongoing prescribed fire program
 - \$1.7 million for invasive tree control in grasslands
 - \$800,000 for wetland and stream work (some of which will likely include invasive species control)
- NGPC worked with UNL and the Rainwater Basins Joint Venture (RWBJV) to continue to improve the science, education, and outreach side of invasive species control (largely through the Great Plains Grassland Initiative). This included NGPC providing financial contributions to research on eastern red cedar, graduate students at UNL, a GIS position and the Science Coordinator position within RWBJV. This also included a management guide produced by USDA/UNL about eastern red cedar management that many partners helped to distribute to grassland landowners across the state.
- NGPC worked with many different conservation partners on the Great Plains Grassland Initiative, which is largely focused on cedar encroachment in our grasslands, and various grants were pursued and obtained for work across much of the state. This includes an advertisement that has been running within the Nebraska Cattleman magazine that provides information to landowners on how to get involved and highlights the wide-ranging partnership of this initiative.
- NGPC worked with Nebraska Invasive Species Council chair and voting members to fill the NISC Coordinator position late in 2023. NGPC funds this position that is employed by UNL.
- NGPC Wildlife Division sponsored the NAISMA conference in Lincoln and attended and had direct interaction with participants from across the state which should lead to further partnerships and coordinated efforts in the future.
- NGPC Partners Section was actively involved (with invasive species management issues) with 52 related groups, agencies, and organizations in 2023.
- Fifty-five conservation partners were directly involved in projects or efforts related to Invasive Species Management with NGPC Partners Section during 2023.

Nebraska Weed Control Association

The Nebraska Weed Control Association (NWCA) continues to be a leader in managing invasive plants across Nebraska. All 93 counties work daily with private landowners to manage invasive



plants on both private and public lands. The NWCA also facilitates statewide cooperation managing invasive Common Reed (*Phragmites australis*) and other species in riparian areas throughout the State. Twelve Weed Management Area groups spearheaded this cooperation between NWCA, NGPC, Natural Resource Districts, Public Power Districts, Private Landowners, and several other entities. In addition, 8 new “Play, Clean, Go” boot brush stations were placed along public use trails to inform about invasive species.

Aquatic Invasive Species Activities

Nebraska Game and Parks Commission – Fisheries Division

Nebraska’s fishing and aquatic resources contribute over \$450 million to the State’s economy and support more than 3,200 jobs. Aquatic invasive species (AIS) can severely damage aquatic resources, threatening their economic input. The Nebraska Game and Parks Commission (NGPC)’s AIS Program was established in 2020 and implements numerous prevention and control efforts to keep Nebraska’s waterbodies free of invasive species.

The AIS Program conducts watercraft inspections annually between Memorial and Labor Day to prevent invasive species from entering waterbodies. Watercraft inspections are a central part of AIS prevention, providing direct prevention and education to water recreationalists. This year 3,413 inspections completed statewide at 34 public Nebraska waterbodies by 5 temporary technicians in 2023. This is the second highest number of inspections completed during inspection season in the program’s history. More than 6,000 handout items were supplied during these inspections. Of all inspected watercraft only 10 were considered non-compliant with “Clean, Drain, and Dry” protocols and 402 were considered high-risk (coming from infested waterbodies).



Zebra mussels are of high priority in Nebraska due to their detrimental effects that can negatively impact aquatic ecosystems, damage water infrastructure, and foul public swimming areas. Nebraska is unique in that zebra mussels are not yet widespread throughout the state. Surrounding states like South Dakota and Kansas continue to report more waterbodies infested with zebra mussels. In addition to watercraft inspections, zebra mussel early detection larval sampling is conducted monthly during the spawning season. Early detection sampling was performed at 49 different Nebraska waterbodies and a total of 148 samples were collected. 2023 marked first year in which all samples were analyzed in-house at the NGPC laboratory, rather than sending samples to a specialty laboratory which can delay rapid response actions.

At the beginning of 2023 Nebraska had four zebra mussel-infested waterbodies: Lewis and Clark Lake, the Missouri River, Lake Yankton, and Offutt Air Force Base Lake. On May 8th, the AIS Program was notified by the president of the Beaver Lake Association near Plattsmouth that a lake resident had found an adult zebra mussel on their boat lift. The AIS Program Manager and Temporary Biologist visited the site the same day to collect larval samples and inspect for adult mussel presence. While both the initial larval sample and inspection yielded negative results, subsequent repeat sampling and inspection ultimately indicated zebra mussel presence and reproduction. A press release stating that Beaver Lake was positive for zebra mussels was published on June 23rd and a public forum for Beaver Lake residents took place on July 14th. The forum addressed what residents should expect moving forward and how to prevent the mussels from spreading to nearby waterbodies. As Beaver Lake is a private waterbody, NGPC does not have jurisdiction over it and has never conducted watercraft inspections or prior veliger sampling at this location. However, the AIS Program continues to be available to residents of Beaver Lake for advisement and assistance.

In 2020 the AIS Program began the first systematic sampling of aquatic vegetation in Nebraska. To date over 80 public waterbodies in Nebraska have been sampled for invasive aquatic plants. Of these, 42 contain an established population of at least one invasive aquatic plant. Priority invasive aquatic plant species for control include curly-leaf pondweed, Eurasian watermilfoil, and brittle naiad. All these plants can outcompete native plants, restrict water access, and are considered unsuitable habitat for native aquatic species. Chemical treatment is often considered the best option for invasive aquatic plant management. Due to staffing and budget constraints, alongside the confirmed zebra mussel infestation at Beaver Lake, no chemical vegetation treatment was applied in 2023. This does not imply management of invasive aquatic plants is unimportant but rather demonstrates the constraints of a program with only one permanent employee and limited resources.

Invasive carp (also known as Asian carp) continue to be a priority for the AIS Program. Over \$200,000 was distributed to the University of Nebraska-Lincoln to conduct research on invasive carp population and management strategies. The overall goal of this research is to develop a comprehensive invasive carp management plan that will guide control efforts into future years.

Despite its small program size with only one full-time permanent employee, the AIS Program engaged in various forms of AIS spread prevention and education efforts in 2023. By doing so, it protected Nebraska's aquatic resources to preserve them for recreational and economic benefit. Although the program has its share of notable successes, an increase in resources in the form of salaries for permanent staff and overall budget increase would yield higher watercraft inspections, further vegetation surveying and treatment, and an increase in public education programs. As Nebraska continues to battle AIS, this program will be vital in preserving Nebraska's waters.

Nebraska Public Power District

Nebraska Public Power District (NPPD) continues to mitigate the effects of zebra mussels at its Cooper Nuclear Station on the Missouri River, which costs several hundred thousand of dollars annually. Statewide, NPPD monitors for new infestations of zebra mussels and other invasive species which could impact performance of its power plants, hydroelectric dams, and canal systems. Aquatic plants, including spiny naiad and sago pondweed, have begun to affect operations of several water bodies controlled by NPPD. NPPD is working with the NGPC and private contractors on selecting the proper herbicides and appropriate application methods to best manage these aquatic invasive species. NPPD shoulders significant costs related to both the ongoing efforts to control these invasive species, as well as the increased facility maintenance costs their presence continues to create. Ultimately, these increased costs affect NPPD's customers – the people of Nebraska.

NISC Legislative Recommendations

The NISC, generally, supports increased funding for control, research, and management of invasive species in Nebraska. Threats from invasive species are constantly evolving and thus both keeping and increasing management capability is paramount to the future of Nebraska's natural resources. Legislation such as LB218 furthers the ability of Nebraska's invasive species management entities to respond to the threat of invasive species in the State.

The NISC will continue to keep the Governor and appropriate legislative committees apprised of any invasive species issues that arise and warrant attention. Please contact the acting NISC Coordinator with any questions or concerns regarding invasive species in Nebraska.