

NEBRASKA INVASIVE SPECIES ADVISORY COUNCIL

2019 LEGISLATIVE REPORT

Report Recipients: Governor Pete Ricketts and members of the Agriculture Committee of the Nebraska Legislature

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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 Advisory Council 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 in order 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 the Nebraska Invasive Species Advisory Council as called for in Nebraska Statute 37-1406 (2).

Official 2019 Nebraska Invasive Species Advisory Council Members

The table below shows the voting and non-voting members of the Nebraska Invasive Species Advisory Council (NISC). These are the current representatives of the agencies and affiliations listed in the legislation that created the NISC.

VOTING MEMBERS	
Name	Agency/Affiliation
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 Cooperative Fish & Wildlife Research Unit of the University of Nebraska
Kim Todd	Public Interest Member
Mitch Coffin	Nebraska Department of Agriculture
Richard Holland	Nebraska Game and Parks Commission
Steven Jara	Nebraska Forest Service of the University of Nebraska

NON-VOTING EX-OFFICIO MEMBERS	
Name	Agency/Affiliation
Brenda Densmore	US Geological Survey
Carmen Thomson	National Park Service, Midwest Region
Chris Helzer	The Nature Conservancy
Cindy Stuefer-Powell	USDA Animal and Plant Health Inspection Service
Ritch Nelson	USDA Nebraska Natural Resource Conservation Service

Nebraska Invasive Species Advisory Council 2019 Activities

NISC meetings were held monthly in 2019, except in October and November, and worked to accomplish the objectives stated in Nebraska Statute 37-1404. NISC meeting announcements were posted prior to meetings on the Nebraska Invasive Species Program website <https://neinvasives.com/nebraska-invasive-species-council> and emailed to members and regular attendees. The NISC is charged with conducting outreach to increase awareness of priority invasive species. NISC members disseminated invasive species field guides, outreach materials and brochures to resource agency staff, target audiences and the public to promote early detection of invasive species infestations. The public can use the Nebraska Invasive Species Program's website to report invasive species discoveries. More than 46 new invasive species sightings were received via the website in 2019. This included 24 reports of the invasive Asian jumping worm (*Amyntas* species and *Metaphire*

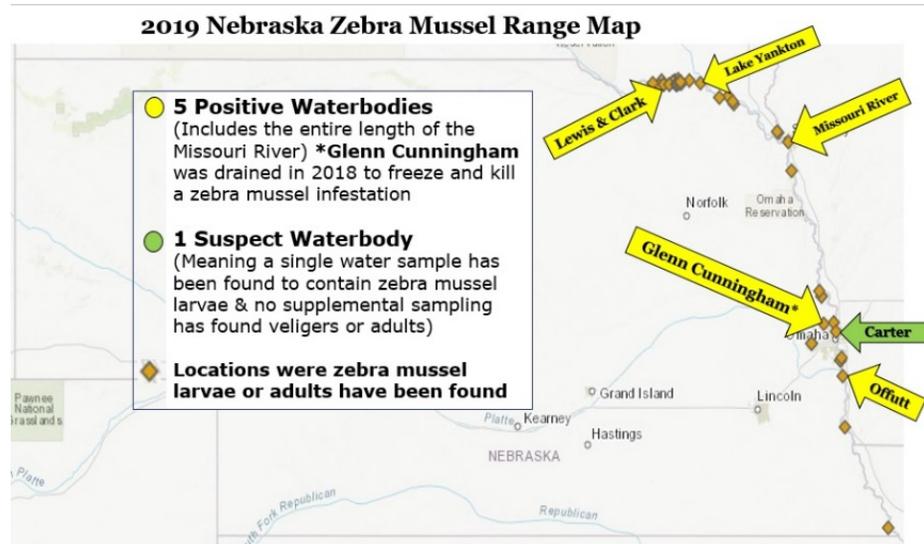
species) which had never been found in Nebraska before. NISC members attended regional conferences and meetings to learn about and present on invasive species research and management efforts and updated the NISC on pertinent research and management efforts. NISC members presented invasive species identification presentations to various groups including: the Nebraska Lakes Association, the Nebraska Weed Control Association and the Nebraska Nursery and Landscape Association. NISC members and their agencies conducted invasive species surveys throughout the state.

Aquatic Invasive Species (AIS) Infestations and Prevention Efforts:

There are a number of AIS that threaten Nebraska’s natural resources. Zebra and quagga mussels are particularly devastating to surface water systems as infestations can restrict water movement by clogging infrastructure, in turn creating economic maintenance impacts. Infestation can also have ecosystem-level impacts to native and desired species. Zebra and quagga mussel sampling was

conducted by the Nebraska Game and Parks Commission, Nebraska Public Power District, Bureau of Reclamation and the US Army Corps of Engineers at more than 38 waterbodies throughout the state. Zebra mussels were not found in any new waterbodies in 2019 and quagga mussels have not been found in Nebraska to date. Lake Zorinsky in Omaha, NE was delisted in July 2019 because zebra mussel adults or larvae were not detected at the waterbody for the past 3 years (Western Regional Panel protocol for delisting).

Nebraska has one suspect zebra mussel waterbody (which means only a single water sample has been found to have zebra mussel larvae in it) which is Carter Lake in Omaha, NE. If larvae or adult zebra mussels are not found before June 2020 it can be delisted. Nebraska now has 5 zebra mussel positive waterbodies that include: Lewis and Clark Lake (near Yankton, SD), Lake Yankton, the Missouri River, Glenn Cunningham Lake (Omaha, NE) and Offutt Air Force Base Lake (Bellevue, NE). A zebra mussel eradication effort occurred during the winter of 2018 to draw down Glenn Cunningham Lake in Omaha, NE to freeze and kill a new zebra mussel infestation. The reservoir water level remained low during 2019 (area enhancement project), however sampling continued yielding no positive results for adult or larval zebra mussels. Once refilled, it will continue to be closely monitored to determine if the eradication effort was successful.



Zebra mussels can travel on watercrafts, trailers and equipment for up to 2 weeks out of water in damp conditions making them easily transported to infest other waterbodies. Once they are in an open waterbody, there is currently no treatment (other than de-watering the system completely) proven to be successful to eradicate 100% of the population. Prevention is key to protecting our waterbodies from AIS and public outreach is an effective way to teach the public to clean, drain, and dry watercrafts, equipment, and trailers. Many of the agencies in the NISC conduct outreach to increase public knowledge of how to prevent the spread of AIS.

The Nebraska Invasive Species Program purchased a waterless watercraft cleaning unit and it was installed at Weigand marina on Lewis and Clark Lake in May 2019. The unit is free for the public to use to clean their watercrafts and equipment to prevent the spread of AIS. Lewis and Clark Lake is infested with zebra mussels and cleaning, draining and drying watercrafts and equipment before launching at another waterbody is key to prevent the spread of AIS. The Nebraska Game and Parks Commission (NGPC) conducted watercraft inspections and decontaminations to prevent the spread of AIS during the summer of 2019. A total of 2,843 watercraft inspection were completed. Less than 1% of the watercrafts that were inspected in 2019 had any risk factors which shows the majority of boaters cleaned, drained and dried their watercrafts which is very encouraging as those steps prevent the spread of AIS. 2019 was the first year Nebraska used the Western Regional Watercraft Inspection and Decontamination (WID) data sharing system to share results of inspections and decontaminations with technicians in other states inspecting watercrafts. 2019 inspection data will be studied to determine the prevalence of AIS prevention behavior among watercraft operators to inform decisions on AIS prevention efforts for 2020. NGPC technicians conducted AIS outreach at family fishing nights, fishing tournaments and expos. They also disseminated outreach materials in tandem with inspections.



Watercraft Cleaning Unit at Lewis & Clark Lake

Omaha Public Power District Power (OPPD) facilities, that pull water from the Missouri River, are finding massive numbers of zebra mussels in their facilities and are installing control systems in order to keep their facilities operational. Members of the NISC attended a tour of the OPPD's Nebraska City power facility in November 2019 to learn about the new chemical control system that was installed to keep zebra mussels from clogging the facility's equipment. This photo shows tour attendees.



The NGPC Fisheries staff conducted sampling for invasive Asian carp, which include silver carp and bighead carp, to determine their prevalence in sand pit complexes along the Platte and Elkhorn Rivers post-flood. Jeff Blaser, NGPC private waters specialist, recently aided with a commercial netting effort at a private sandpit lake along the Platte River to remove 30,000 pounds of rough fish, a majority of those fish were silver carp. Due to flooding river sampling was limited but more Asian carp sampling efforts are planned for 2020.

Terrestrial Invasive Species Infestations and Prevention Efforts:

A new invasive invertebrate the Asian jumping worm (*Amyntas* species and *Metaphire* species) was identified for the first time in Nebraska via public reports to the NISP. Currently the worm has been identified in 4 counties in eastern Nebraska but the public is encouraged to look for this worm and report sightings to the NISP website: <https://neinvasives.com/report-a-sighting>. The Asian jumping worm looks very similar to the European earthworm, however it has snake like movements. It can cause ecosystem level impacts as Asian jumping worms outcompete, outnumber and out-consume other worms

HOW TO IDENTIFY JUMPING WORMS

- 1) Snake-like behavior
Jumping worms will thrash wildly when handled
- 2) Clitellum
The clitellum (band near the head) completely encircles the body, is milky white to gray, and smooth to the body (not raised)
- 3) Body color
Body color varies from reddish brown to dark brown, but skin looks smooth and shiny, almost metallic

Not to be confused with: Common invasive European species have a raised or saddle-shaped, segmented clitellum

in the landscape. Instead of mixing nutrients in the soil, nutrients are released too quickly to the surface and ultimately get washed out of the area with heavy rain and flood waters. They readily consume organic material like mulch and fallen leaves. They replace this soil with their worm castings, which are small, loose, hard pellets, which resembles spent coffee grounds. This material is not conducive for plant growth as the soil structure has changed and lacks water-holding capacity. Without organic matter in the soil, plant roots have a hard time staying rooted. There are gaps in research which need to be investigated including: what products or practices can be used to kill Asian jumping worm and how do they impact prairie systems.

Another new invasive insect of concern (that has not been found in Nebraska) is the spotted lanternfly. It has been found in 8 states in the eastern US including: NY, MA, CT, PA, NJ, DE, MD and VA. This insect is a planthopper and has over 100 host plant species it can cause harm to. These plants include commodities as: various fruit trees, grapes and hops as well as many other tree species including tree of heaven. The spotted lanternfly damages host plants by feeding on sap from stems, leaves, and the trunks of trees. The sugary secretions (excrement) created by this insect may coat the host plant, later leading to the growth of sooty mold. Host plants have been described as giving off a fermented odor when this insect is present and this can compromise the plant and its fruits. This insect is primarily spread long distances when females lay egg masses on vehicles or products that are then moved to other states. The Nebraska Department of Agriculture has started conducting surveys to identify the insect in Nebraska. They will also be contacting trucking companies that travel from the states where the insect has been found to Nebraska to ensure this insect is not brought here on a vehicle. Please report any finds of this insect to the NISP website: <https://neinvasives.com/report-a-sighting>.



Emerald ash borer is a small insect whose larvae damage native ash tree species and over time can kill the tree. The Nebraska Department of Agriculture's quarantine now includes 8 eastern Nebraska counties (Cass, Dodge, Douglas, Sarpy, Saunders, Washington, Lancaster and Otoe) and regulates the movement of specific articles that could be capable of carrying emerald ash borer. NISC members conducted outreach to the public and resource agency staff on options for replanting, removal and treatments for ash trees. Japanese beetles are another invasive insect of concern as they have a large range of host plants and are at peak levels in the Omaha, NE area and are increasing in Lancaster County. NISC members conducted outreach to provide the public with information on this pest and how to best manage it.

Invasive Plant Infestations and Prevention Efforts:

Due to the flooding in 2019 the NISC discussed invasive plant concerns. These concerns include floating mats of phragmites, an invasive tall grass species, which were displaced by flood waters. Phragmites can grow from plant fragments and it will take time to find and control new infestations.

An additional concern was hay which was donated from various states and distributed throughout Nebraska. Hay could contain invasive plant seeds and new invasive plant infestations could develop from this vector. The NISC had many meeting presentations and conversations regarding invasive plant species in 2019 and management and research efforts to control them. The NISC discussed callery pear, which is a problematic ornamental tree species and will be providing outreach to industry and nurseries on other ornamental trees they can sell instead of the callery pear. The concern



Callery Pear Infestation

with callery pear is it can invade unmanaged areas and become difficult to control. Callery pear has been removed from the street tree planting list in Lancaster county Nebraska. The NISC will provide comments at their December 2019 meeting to update the Nebraska Weed Watch List which is used to monitor the acres of various invasive or problematic plant species by county weed authorities throughout the state. The NISC distributed invasive plant identification guides at events throughout the state in 2019 to increase early detection for new infestations. You can learn more about invasive plants of concern in Nebraska here: <https://neinvasives.com/plants>.

Nebraska Invasive Species Advisory Council Legislative Recommendations:

The NISC recommends continuation of the council with no modifications. This recommendation is due to the success of the NISC in coordinating invasive species management, research and prevention efforts and providing training and outreach materials to resource staff and the public. These efforts help in early detection and rapid response to contain new invasive species infestations. The NISC will continue to engage new members and partners to meet the NISC's objectives. The NISC will continue to keep legislative committee(s) apprised of any invasive species issues that arises that warrant legislative attention. Please contact us with any questions or concerns regarding invasive species.