

Regional Panels Join Forces to Prevent Spread of AIS: The Strength in Numbers

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Every year, hundreds of boaters, anglers, swimmers, and property owners enjoy recreational activities on the water. Our freshwater lakes and rivers provide ample opportunities for everyone to enjoy time on a boat, head out fishing, or even snorkel and SCUBA dive. However, while enjoying our freshwater resources, water users are at risk of unintentionally moving aquatic invasive species, or AIS, between bodies of water.

Numerous AIS are confirmed in the Great Lakes, St. Lawrence River, Lake Champlain, Mohawk River, Hudson River, Connecticut River, and other inland waterbodies throughout the Great Lakes and Northeast. Plants, including *Hydrilla verticillata* (hydrilla), Eurasian watermilfoil (*Myriophyllum spicatum*), and starry stonewort (*Nitellopsis obtusa*); fish such as the round goby (*Neogobius melanostomus*); and invertebrates like the bloody red shrimp (*Hemimysis anomala*), spiny waterflea (*Bythotrephes longimanus*), and fishhook waterflea (*Cercopagus pengoi*) are just some of the species that have been introduced into these aquatic systems and cause negative impacts to these ecosystems. These species are known to prey upon native species, outcompete native species, alter ecosystem function, limit recreation, generate economic costs and, in some cases, impact human health. These species and other AIS can expand their ranges via transportation by motorboats to new locations. Educating boaters about the threat of AIS and how they can avoid transporting AIS across the region is incredibly important.

The AIS Landing Blitz directly addresses this objective, focusing on interactions with the public and building strong community relationships to empower recreational water users to take

steps to clean their boats and gear to mitigate the risk of AIS spread every time they visit a water access point. With careful and intentional messaging about this risk, water users can become knowledgeable about the risks of AIS, ways to reduce that risk, and may even serve as ambassadors for our shared freshwater resources by extending that education to their friends and families (Figure 1).

2019-2021

The AIS Landing Blitz is a binational, multi-agency, cross-regional project that was initially led by Great Lakes states and provinces independently of each other. These Landing Blitz events prioritize education of boaters and other water users by sending staff and volunteers out to public boat ramps to meet people where they are, and constructively engage them in educational opportunities. The structure of these events is unique in that the emphasis is on getting staff *out* of the office and focusing their time on talking with people. These educational opportunities mean that water users can put a face to an organizational label; these are real people

representative the agency that they work for, rather than a faceless organization. Giving agency staff and the public an opportunity to interact one-on-one not only provides more valuable educational experiences, but also contributes to building and maintaining important community relationships.

The event was first coordinated at a regional scale by the Great Lakes Panel on Aquatic Nuisance Species [Great Lakes Panel on Aquatic Nuisance Species – Great Lakes Commission \(glc.org\)](#) in 2019, and received funding by the USEPA



Figure 1. NYS watercraft inspection steward in action (NYSDEC).

Great Lakes Restoration Initiative Interjurisdictional Grant Program in 2021 (<https://www.glc.org/work/blitz>) to further expand those efforts. The Great Lakes Panel is one of the regional panels created by the Federal Aquatic Nuisance Species Task Force (<https://www.fws.gov/program/aquatic-nuisance-species-task-force>) and was first established by Congress in 1990 to “to protect the waters of the United States by creating a coordinated, unified network that raises awareness and takes action to prevent and manage aquatic nuisance species.”

Partners from the Great Lakes states and Canadian provinces (Figure 2) (Illinois, Indiana, Michigan, Minnesota, New York, Ontario, Ohio, Pennsylvania, Québec, and Wisconsin) agreed to have active boat stewards along the lakes during a ten-day period covering both Canada Day (July 1) and Independence Day (July 4). These on-the-ground efforts were combined with an increase in social media, press, and television coverage through the coordinated social media templates developed for consistent messaging. Boat stewards who interact with the public are a very effective means of promoting behavior change among

boaters, helping them adopt the habit of cleaning, draining, and drying their watercraft.

Clean.Drain.Dry (Figure 3) is the catch phrase for the U.S. Fish and Wildlife Service (USFWS) Stop Aquatic Hitchhikers! Program (<https://stopaquatichitchhikers.org/>). These constitute the basic steps that all boaters need to take when moving from one waterbody to the next or from one launch to another in a larger waterbody (e.g., Lake Ontario, Lake Erie, Lake Champlain, Cayuga Lake):

CLEAN off visible aquatic plants, animals, and mud from all equipment before leaving water access.

- Rinse equipment and boat hulls (with high pressure, hot water when possible)
- Rinse interior compartments of boats with low pressure, hot water (120°F)
- Flush motor with hot water (120°F) for 2 minutes (or according to owner’s manual)

DRAIN motor, bilge, live well, and other water containing devices before leaving water access.

DRY everything for at least five days OR wipe with a towel before reuse.

For ANGLERS, the additional step of DISPOSE is recommended:

DISPOSE of unwanted bait, worms, and fish parts in the trash. When keeping live bait, drain bait container and replace with spring or dechlorinated tap water. Never dump live fish or other organisms from one water body into another.



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HITCHHIKERS!™**

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Source: stopaquatichitchhikers.org.

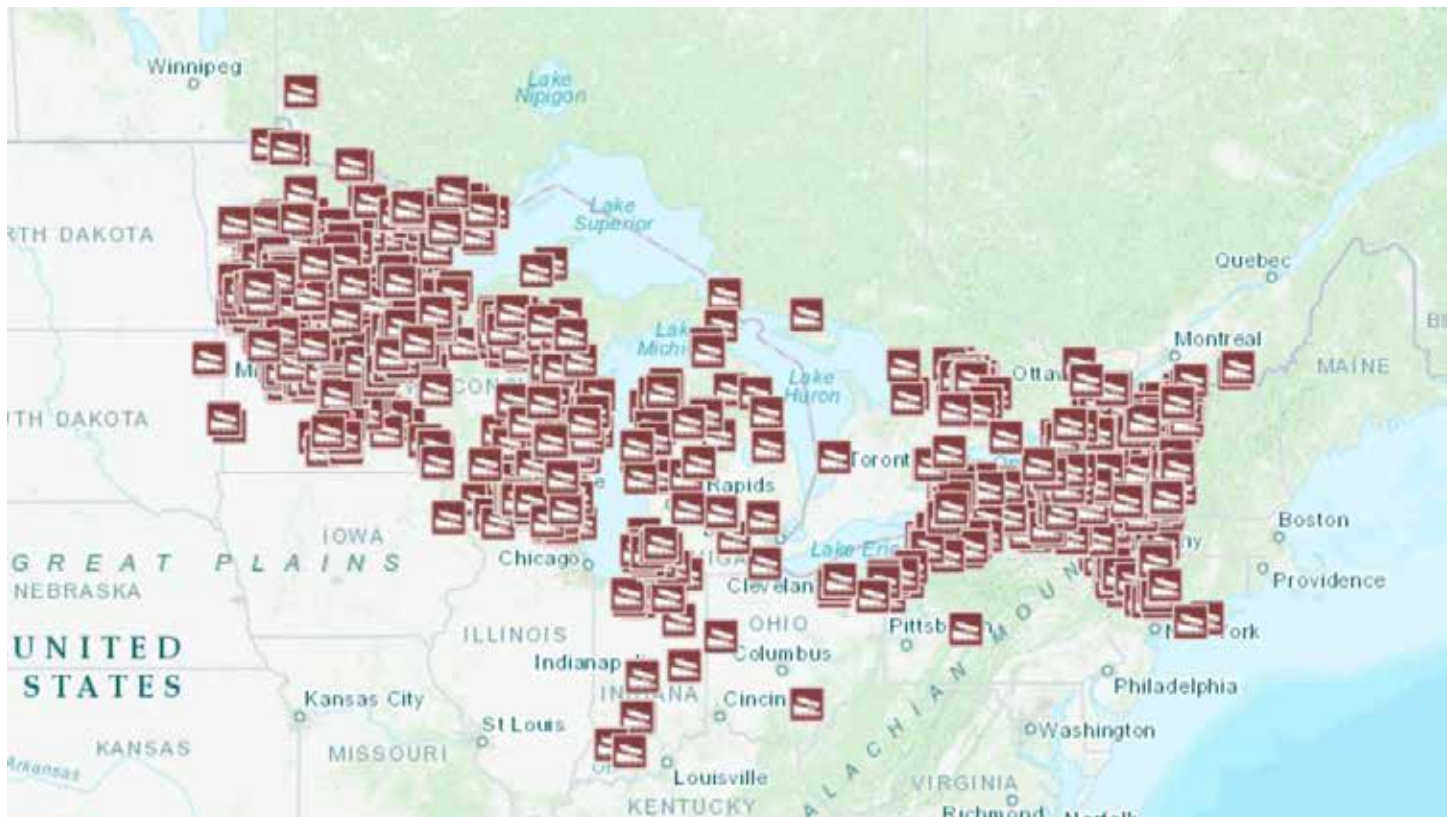


Figure 2. Map of Great Lakes AIS Landing Blitz coverage in 2022 (NYSDEC).



Figure 3. Boater removing plants from equipment after leaving water (Illinois-Indiana Sea Grant; (NYSDEC).

These are the recommendations provided by all stewards in combination with a walk-through inspection as stewards point out locations where aquatic invasive species may get caught on trailers or around the prop. They also review the importance of draining water containing compartments to avoid transport of microscopic AIS. AIS interceptions are a key activity here.

During Landing Blitz events, stewards have intercepted spiny waterflea and fishhook waterflea, zebra mussels, quagga mussels, Asian clam, Eurasian watermilfoil, curly leaf pond weed, Brazilian elodea, and hydrilla on boats during the period of the Landing Blitz. Preventing the spread of hydrilla in particular is a priority as this species is considered the world's worst aquatic weed and is a Federally Listed Noxious Weed and prohibited by many states ([hydrilla \(Hydrilla verticillata\) – Species Profile \(usgs.gov\)](#)).

In some cases, steward programs have collected data on where boaters have been before launching that day which allows us to figure out how boats move across the landscape and which waterbodies could be potential sources of infestations or at risk of introductions (assuming a record of AIS in many waterbodies in those states exist). In addition, if species found on boats at a location don't match the confirmed

species for that waterbody that information would help prioritize that pond, lake, or river for aquatic surveys. For example, on occasion boat stewards in the Buffalo, NY, area have intercepted hydrilla near locations that were confirmed to have infestations (some Niagara River marinas).

Along with recording the number of interceptions (and species intercepted) we also document the number of steward locations, interactions, and inspections for each state. The value of the program can easily be seen in the increase in the number of people educated from 115,000 in 2019 to 173,000 in 2022.

Note there are data for 2020 – the height of the pandemic. As a testament to the commitment of our partners we managed to (safely) reach 128,000 people and conduct 110,000 inspections at more than 1,000 boat launches. Our reach in the Great Lakes region has been steadily increasing from the program's inception and we still have room to grow.

As the program gains momentum, we continue to make changes to reach more boaters and to support the development and/or maintenance of boat steward programs. In 2022, the Great Lakes Commission, via the U.S. Fish and Wildlife Service and the Great Lakes Restoration Initiative, offered more \$65,000 in small grants to 11 local organizations in the Great Lakes Region

to host their own Landing Blitz events. The purpose of the small grants program was to expand community relationships between local organizations and state natural resource agencies, while also providing support for Landing Blitz events in the parts of the Great Lakes region that have historically had less staff capacity and a smaller number of event locations. Recipients in 2022 include the Saginaw Chippewa Indian Tribe of Michigan, Benzie Conservation District (MI), Lapeer Conservation District (MI), Upper Peninsula Resource and Conservation Development Council (MI), Cleveland Metroparks (OH), Fox-Wolf Watershed Alliance (WI), Glacierland Resource and Conservation Development Council (WI), Great Lakes Community Conservation Corps (IL), Kosciusko Water and Woodland Invasive Partnership (IN), Keuka Lake Association (NY), and Seneca Lake Pure Waters Association (NY). Grant recipients held 87 events at 39 locations, educating more than 11,000 people about AIS and demonstrating boat cleaning and inspection methods.

Social media, television, radio, and video help us to reach many people who recreate in the Great Lakes region and raise awareness about the economic and ecological costs of AIS. As the program has grown so has its digital reach, from 130,500 people in 2019 to 272,000 people in 2022. A series of social media templates were developed around the five most important messages for the event: How to properly Clean, Drain, Dry gear/boats (motorized and non-motorized), a review of different cleaning methods, and common AIS associated with boating, how to identify/report them, and their impacts. This coordinated social media approach included the use of hashtags and provided sample posts along with key messages to use when writing social media posts.

In 2022, the Great Lakes AIS Landing Blitz utilized geofencing at a regional scale to spread the word about the event. Geofencing is a digital marketing strategy that uses location services on smart phones to identify visitors at boat launches and serve targeted ads to those visitors about the Landing Blitz. These ads are designed to both inform visitors about the events (e.g., locations, partners, etc.) and to educate them on the key messages of the event

(e.g., Clean, Drain, Dry). This strategy had previously been used in Pennsylvania with great success, and this regional rollout was no different. Seventy-five locations around the Great Lakes were targeted for geofencing, resulting in 389,000 impressions, or views of the ads.

We are working hard to create a culture that supports the protection of our precious water resources from AIS. In fact, in 2022 the Northeast Aquatic Nuisance Species Panel (NEANS: www.northeastans.org) joined the effort – the Northeast states and neighboring Canadian provinces: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, New Brunswick, Nova Scotia, Prince Edward Island, and Québec ([Aquatic Invasive Species Landing Blitz – Northeast Aquatic Nuisance Species Panel \(northeastans.org\)](http://www.northeastans.org)). NEANS Panel stewards provided coverage at 463 locations. Social media and press reached more than 55,000 water recreationists.

2023 and beyond

The Great Lakes and Northeast Panels will continue to expand our education and outreach and increase the

support we provide for local and regional organizations hosting boat stewards. By working together, the Great Lakes and Northeast Panels have had an opportunity to learn from each other and build successful events rather quickly, getting events off the ground on a much shorter timeline than would be required if events were coordinated independently of each other.

In 2023, the Great Lakes Commission plans to distribute \$85,000 in a continuation of this small grants program and hopes to continue the success of 2022 while expanding the geographic reach of the program.

In the future, we hope that more of the six regional aquatic nuisance species panels ([Regional Panels | U.S. Fish & Wildlife Service \[fws.gov\]](http://www.fws.gov)) will host their own Landing Blitz events. Education and outreach promoting AIS spread prevention is a long-term investment with many returns. AIS introductions will be prevented, infestations will be contained, and generations of aquatic recreationists will become water stewards. We hope that you will join us in preventing the spread of AIS.

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