



## **National Aquatic Invasive Species Outreach Workshop Summary Report**

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### Report authorship

- ANSTF Outreach Subcommittee

### Workshop attendance

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## **Introduction**

The National Aquatic Invasive Species Outreach Workshop was held as part of the North American Invasive Species Management Association Annual Conference in Missoula, Montana, October 1st, 2024. The workshop was funded by the US Fish and Wildlife Service and was held in response to findings and recommendations from a national assessment of aquatic invasive species (AIS) outreach to recreational water users. This report can be found on the ANSTF website.

## **Presentations**

The workshop started with a half-day of presentations focused on AIS outreach program national history, supportive events, effectiveness and evaluation of AIS outreach brands and campaigns. These presentations highlighted best practices from across the United States and served to initiate discussion sessions later in the day. A brief list of presentations, speakers, and key points is below:

### *Aquatic Invasive Species Outreach - Program Evaluation*

- Session Summary: Evaluating successes of AIS prevention outreach campaigns and programs is key to showing the success of previous efforts and to improving future

activities. However, across the United States program evaluation has generally been conducted inconsistently using different types of instruments and metrics, making comparison of results challenging, and frequently limiting what can be learned. Presentations in this session featured multi-regional and national assessments with tools and suggested metrics that could be used in future assessments, allowing outreach professionals to better share successes and improve the future of public outreach efforts.

- A national assessment of AIS prevention behaviors and outreach
  - Tim Campbell, University of Wisconsin Sea Grant Program
  - The ANS Task Force completed a national AIS outreach assessment in 2022, which included a survey of 6,000 recreational water users. Generally, results showed that recreational water users across the country perform some AIS prevention measures, but there is room for improvement across all types of water users in every part of the country. Some key recommendations from the report included strengthening AIS prevention brands, which can help provide reminders to water users, and to purposefully integrate behavioral science findings that are known to work.
  - A full version of the report can be found on the ANSTF website..
- Combining behavior change theory with aquatic invasive species outreach evaluation: lessons from the past 20 years
  - Doug Jensen, Minnesota DNR
  - Interrupting the pathways for spread is key for preventing and slowing the spread of AIS; this is often done through behavior change programs targeting pathway users. Early on and still today, many public outreach efforts have relied on information-based approaches oriented on beliefs that audiences will simply “do the right thing.” Expectations have been that this normative behavior would develop through pamphlets and websites alone. Recognizing this inadequacy, AIS outreach’s status is currently in a formative change to integrate AIS management and social science. Combating the spread of AIS can be successful using a focused science-driven approach. Research shows that strategic outreach targeting specific audiences and emphasizing compelling messages based on communication market analyses are effective. A comparison of several assessments showed that AIS outreach is reaching its goals. Several pivotal events helped support and improve AIS public outreach nationally. Compared to many conservation issues of our time, AIS issues are tangible, easy to see, and highly visible with recognizable threats and impacts to our environment, outdoor heritage, and our economies. Importantly, outreach must be actionable.
- Western Regional Panel AIS Outreach Assessment
  - Monica McGarity, Texas Parks and Wildlife Department
  - A recent survey of nearly 4,000 boaters from 19 western U.S. states and one Canadian province yielded new insights, especially from analysis of information

sources and barriers for specific boating demographics and testing message framing, to improve aquatic invasive species (AIS) prevention, while reinforcing prior research. Echoing past surveys, many boaters felt a personal AIS prevention responsibility and most practice CDD (clean, drain, dry), yet these boaters identified several key obstacles to CDD that can aid in guiding outreach and prevention. Identifying knowledge gaps and key sources of information among boaters and specific boating demographics enables tailored outreach solutions and identification of key partnership opportunities. Test messaging provides guidance for effective content overall and by demographic. This study provides key recommendations that align with prior research but can be tailored based on new insights. This approach enables transforming AIS prevention from an individual choice to a social obligation through targeted outreach approaches.

- Links to the full report and an executive summary document can be found here:
  - <https://westernregionalpanel.org/education-and-outreach-committee/>

### *Aquatic Invasive Species Outreach - Branding*

- Session Summary: Brands are useful as communication tools for campaigns and programs since they support visibility, cognition, and memory in combination with workmarks and taglines. A number of different invasive species prevention brands exist with methods of application. Presentations in this session discussed the use of AIS prevention brands.
- Awareness of AIS prevention brands predicts recreational boater prevention behaviors
  - Todd Newman and Bret Shaw, University of Wisconsin Department of Life Science Communication
  - *Stop Aquatic Hitchhikers!* and *Clean Drain Dry* are two common, nationally recognized campaigns used to target recreational boaters with an AIS prevention message within the United States. Despite how often these AIS awareness campaigns are used, there has been no national evaluation to understand if these awareness campaigns are associated with boaters performing AIS-prevention behaviors. To investigate the impact of these campaigns and two others used with recreational watercraft users, we used data from a national survey to determine factors that are related to boaters' self-reported frequency of performing AIS-prevention behaviors. Of the measured factors, completing a boater education course and awareness of *Stop Aquatic Hitchhikers!* and *Clean Drain Dry* were the three most significant variables in predicting performance of AIS-prevention behaviors. This suggests that awareness of these commonly used brands is having a desirable impact on recreational boaters performing AIS-prevention actions and leveraging these brands and associated outreach materials is an effective method of outreach.
- What AIS outreach can learn from Don't Move Firewood

- Leigh Greenwood and Laurel Downs, The Nature Conservancy
- The Nature Conservancy's *Don't Move Firewood* campaign promotes best practice firewood use and seeks to raise awareness about the firewood pathway both directly, and indirectly by helping partner entities improve their outreach. We discussed the methods and branding of the campaign as well as new and ongoing projects meant to achieve a more comprehensive outreach environment. By using the example of the *Don't Move Firewood* campaign's successful integration of many partners' outreach on different geographies and pests, this presentation showcased a model that AIS outreach practitioners could learn from as they discuss cross-entity work within their own professional spheres.
- What can we learn from state AIS prevention brands and campaigns
  - Wisconsin's application of *Stop Aquatic Hitchhikers!* and *Clean Boats Clean Waters*
    - Jeanne Scherer, University of Wisconsin Division of Extension
    - Wisconsin's consistent application of *Stop Aquatic Hitchhikers!* and *Clean Boats Clean Waters* have led them to being well recognized by boaters in Wisconsin. Even without paid advertising, having thousands of watercraft inspectors wear the same *Stop Aquatic Hitchhikers!* and *Clean Boats Clean Waters* shirt has made these brands very recognizable within Wisconsin. Taking advantage of already existing sources of information exposure could improve brand and campaign reach.
  - Illinois' *Be a Hero* Transport Zero campaign
    - Greg Hitzroth, Illinois-Indiana Sea Grant
    - The *Be a Hero* AIS prevention brand was created in Illinois to provide one consistent prevention message across AIS pathways. Its consistent application across all pathways has made it highly recognizable and rated highly in a statewide assessment. Illinois' efforts can be a national model for creating and applying a campaign that may capture different audiences than national *prevention brands*.
  - Texas' *Protect the Lakes You Love* Campaign
    - Monica McGarity, Texas Parks and Wildlife Department
    - The *Protect the Lakes You Love* campaign taps into Texan's strong sense of place to remind them to perform AIS prevention actions while boating, and was guided by extensive surveys and focus groups. Texas does not have a watercraft inspection program and relies heavily on a multifaceted marketing approach to reach boaters to encourage desired behaviors. The campaign implementation approach also led to this campaign being highly rated within the national assessment and can be a model for programs that don't have the ability to reach boaters in person with prevention messages.

## **Discussion Themes**

## Consistent Messaging and Branding

A strength of our current approach for AIS campaigns is the consistency of the prevention messages outlined in the “[Voluntary Guidelines to Prevent the Introduction and Spread of Aquatic Invasive Species: Recreational Activities](#)”. While there is more detailed information in this document, the recommended AIS prevention actions for outdoor recreation users are best summarized as “Clean Drain Dry” . Every AIS prevention campaign and brand features this information, or some version of it, helping keep AIS prevention actions consistent across states and the country. Therefore, these campaign brands should not be perceived as competing with one another, rather they complement each other by communicating very similar preventive actions. While there could be more consistency with branding and the visual identity of AIS prevention messaging, the consistency of the guidance put AIS prevention communication and outreach nationally in a strong position.

### *Co-branding can leverage individual brand and campaign strengths*

Well-established national prevention brands, like *Stop Aquatic Hitchhikers!* and *Clean Drain Dry*, are known to be effective communication tools that are linked to encouraging outdoor recreationalists to perform AIS prevention actions. However, these AIS prevention brands may not serve all needs or speak to every audience. There may be instances where state campaigns, like *Clean Boats Clean Waters*, are more appropriate because they have been long-standing campaigns which have generated community buy-in and investment. Leveraging the strengths of these approaches doesn't have to be an either/or decision. Co-branding allows for prevention messages to be used together so that they are mutually beneficial. For example, if there is a desire to cobrand *Stop Aquatic Hitchhikers!* with a state AIS prevention brand, recreationalists that are aware of the national brand (e.g. out of state boaters) will likely understand the meaning of the state brand also if they are aligned with one to communicate the primary message to target audiences. This simple, common sense approach can allow AIS prevention campaigns and programs to work side-by-side and result in win-wins. This allows efforts to continue to tap into brand equity, while also providing opportunities to convey a variety of taglines and varied messages to specific audiences and demographics, such as waterfowl hunters, recreational divers, etc.

### *Campaign Implementation Needs*

- 1) A shared understanding about how individual AIS outreach campaigns and brands fit together.
  - a) It can be difficult for AIS outreach professionals to understand how current AIS prevention campaigns fit together. A schematic to show how all AIS campaigns targeting recreational water users to define and work together toward the same goal would increase understanding of outreach partners on how all individual efforts relate and build from one another.
  - b) A coherent story of how these current campaigns support each other can help explain the value of each campaign through the lens of positive reinforcement and without the unnecessary view of competing efforts.

- 2) More guidance on how to consistently implement outreach campaigns.
  - a) Many staff and partners implementing AIS prevention campaigns have little to no formal public communications or outreach training. They are often natural resource managers and environmental professionals that are balancing multiple tasks, with implementing outreach campaigns as one of them. Guidance on how to effectively implement AIS outreach campaigns would be beneficial to people that lack formal training.
- 3) Additional coordination for consistently implementing national outreach campaigns.
  - a) *Stop Aquatic Hitchhikers!* is the national AIS outreach campaign for recreational water users, and as such, should have dedicated staff and resources to help campaign partners implement the program. The *Stop Aquatic Hitchhikers!* campaign was designed to be supported nationally, but implemented at regional, state, and local levels. While it is the national brand, support for other similar existing campaigns are encouraged either as a single branded campaign or as co-branded campaigns.
  - b) [The Nationally Coordinated Invasive Species Prevention MOU with North American Invasive Species Management Association, Inc., Wildlife Forever, National Park Service, and U.S. Fish and Wildlife Service](#) is being used to strengthen invasive species prevention activities and to implement the “Clean. Drain. Dry.” prevention message as a component of the *Clean Drain Dry Initiative™*, *Stop Aquatic Hitchhikers!*, and “*PlayCleanGo: Stop Invasive Species In Your Tracks*” campaigns to elevate cooperation between parties, increase public awareness through education, and create clear calls to-action that empower people to prevent the spread of invasive species. A refresh of *Stop Aquatic Hitchhikers!* that includes brand augmentation for some recreational water user audiences. This MOU could serve as a model to other campaign coordination efforts.
  - c) The National AIS Outreach MOU helps do this across campaigns.
- 4) A refresh of *Stop Aquatic Hitchhikers!* that includes brand augmentation for some recreational water user audiences.
  - a) As outreach efforts expand beyond recreational motorized boaters, the current *Stop Aquatic Hitchhikers!* campaign may not always resonate with other recreating audiences that would benefit from *Clean Drain Dry* guidance. Efforts to retain the same visual appeal while incorporating additional users could be further investigated to improve the effectiveness of the campaign’s brand and associated prevention messages.
  - b) However, as a brand refresh and potential augmentations are considered, it is important to note that there is significant audience overlap between recreational boaters and other audiences. A consistent logo will speak to many recreationists across activities.
  - c) The previously mentioned Outreach MOU could be a model for new campaign coordination efforts.

#### Evaluation of Outreach Programming

### *We know that Stop Aquatic Hitchhikers! and Clean Drain Dry guidance works*

Both *Stop Aquatic Hitchhikers!* and *Clean Drain Dry* are known to be associated with boaters that perform prevention actions more often. We know that more boaters than ever are responding to these campaign messages because some jurisdictions are reporting high awareness and proactive actions taken, and the rate of AIS spread has slowed over the past 10 years. Great Lakes regional projects that have implemented *Stop Aquatic Hitchhikers!* and CDD programming have generated over two billion exposures targeting boaters. Thanks to investments of consistent tracking of metrics and their evaluation, we recognize the impacts of these public prevention outreach efforts and have compelling evidence that they work. However, it is also known that there are gaps in AIS program evaluation, capacity and expertise which limits our ability to know what works and to learn from each other. Training, expertise, capacity and resources need to exist for state, regional, and national programs to better evaluate their AIS outreach programming so that we increase the efficiency and effectiveness of our investments. Prevention works and greater investment is needed to support AIS prevention outreach and its evaluation.

### *Needs*

- 1) A cohort or network of people that can help outreach professionals with program evaluation.
  - a) Knowing and finding social scientists or those who have social science assessment skills that can help with program evaluation (quantitative, qualitative, mixed methods). The USGS NAS Experts Database could be a place to identify people within the AIS community that have these skills.
  - b) Regional ANS Panel outreach and research committees could be a place to identify state agency and university-based social scientists and businesses with the ability, expertise, and capacity to support assessment of public AIS efforts to improve AIS communication and outreach into the future.
  - c) There are program evaluation services within organizations of ANSTF and regional ANS panel membership. There should be an understanding of those resources and what they can assist with. It could be useful to develop a center or team dedicated to these issues. A Sea Grant Program Evaluation Center, which has been discussed within the Sea Grant Network, could be an example of such a center.
- 2) A shared understanding of the different types of evidence to support program evaluation.
  - a) Some campaign efforts have developed targeted behavioral metrics which have aligned with behavior action messages (e.g., Great Lakes Sea Grant Network). Ideally, behavioral metrics should be measured in some ways with any campaign or program to be able show support successes, limitations, or failures outreach efforts. However, developing metrics is tricky unless insights from social science are used to align them with outcome-based messages. Linking outreach efforts to intention, emotion, and other theoretical metrics can be useful while being

relatively easier and more affordable to accomplish. generate. The Theory of Planned Behavior and related Community Based Social Marketing approaches are examples of how theory can help with program evaluation and the creation of successful outreach campaigns.

- b) In addition to evaluation metrics, evaluations and assessments can be done at different scales with different levels of investment and generalizability. Program managers should have an understanding of these different scales and what the evaluation can say about a given effort. For example, a evaluating a local effort immediately after the event says a lot about that specific event with little investment, but might not have broadly applicable results. A statewide survey of recreational water users can evaluate an entire program, but is costly and may not provide insights on a specific effort. Understanding when and where to use these different evaluation approaches can create efficiencies and maximize what we can learn to improve our programs.
- 3) Ways of cultivating relationships between natural resource and social scientists, program evaluators, and AIS outreach and communications program staff.
  - a) These relationships are key to designing evaluations and experiments that benefit everyone involved in the process. Having social scientists and evaluators involved in all parts of the process can help them identify opportunities for research that meet their research needs while creating usable knowledge for AIS outreach staff to advance and improve future efforts. Similarly, having outreach staff, communications, and social scientists or those with social science experience involved in research and evaluation helps research focus on not just theoretically interesting ideas, but practically useful ones, too.

### A National Communications and Outreach Plan

*While AIS outreach nationally has been successful at raising awareness, better communication and coordination would help improve the effectiveness of behavior change.*

As important as outreach is to the prevention aspects of AIS management, there has never been a national communication and outreach plan that helps all states prevent the spread of AIS. A national communication plan could leverage federal resources to promote consistent communications and messaging nationally. It can help implement communications and outreach in areas with few state resources for these programs and it can serve as a guidance document for states with already robust communications and outreach programs. It could also serve as a leverage point for agencies and grant opportunities for those interested in conducting AIS public outreach and assessment.

### *Communications and Outreach Plan Needs*

- 1) A plan and funding for routine implementation of campaigns.



- a) Adequate funding for research and new program development. New programs may not be needed as existing campaigns and outreach programs have shown desired and intended effects. Additional funding can help implement what we already know works. Additional funding can also help support states with small or no AIS outreach programs.
  - b) Identifying new, existing, or dedicated funding sources that could fund routine implementation work.
- 2) Direction on how AIS information is communicated through various channels.
  - a) ["Voluntary Guidelines to Prevent the Introduction and Spread of Aquatic Invasive Species: Recreational Activities"](#) form the cornerstone of outreach and communications to various audiences. However, how we communicate those messages varies (e.g., traditional media, digital media channels, in-person methods). A plan that outlines different methods, benefits and challenges, and how to best utilize them for AIS outreach would help with consistent implementation.
- 3) Prioritize user groups and invasion pathways that are the focus of outreach efforts.
  - a) It is generally known which invasion pathways are the riskiest for new invasions and which pathways contribute the most to the secondary spread of AIS. Prioritizing these pathways will ensure that implementation funding is spent on the pathways of highest risk and priority based on magnitude and propagule pressure (i.e., audience size or inherent risk including the frequency and amount of AIS spreading within each pathway), while other opportunities may be used to fund outreach efforts for smaller and less risky pathways. Prevention cannot address a single pathway to be effective. Ideally, prevention addresses all of the significant pathways for spread. Without this approach, prevention is a leaky sieve.
- 4) A national communication plan could include all of this information and be guidance for anyone engaging in AIS outreach.
  - a) This could be developed by the ANSTF Outreach Subcommittee with guidance from communication professionals.