

# AQUATIC NUISANCE SPECIES TASK FORCE: MINUTES OF THE DECEMBER 2018 MEETING

**DECEMBER 12 - 13, 2018; FALLS CHURCH, VIRGINIA**

On December 12 – 13, 2018, the Aquatic Nuisance Species (ANS) Task Force held a two-day meeting at the U.S. Fish and Wildlife Service Headquarters in Falls Church, Virginia. Action items are listed below, followed by a summary of the meeting.

## Decisional Items

The ANS Task Force made the following decisions:

- ANS Task Force conditionally approved the *ANS Task Force 2016-2017 Report to Congress*
- ANS Task Force conditionally approved the *ANS Task Force Strategic Plan for 2019-2024*

## New Action Items

The ANS Task Force assigned the following action items:

- ANS Task Force members and regional panels will provide formal comments on the ANS Task Force Report to Congress for 2016 - 2017 by January 31, 2018.
- USFWS staff will coordinate with appropriate members to respond to the GLP / MRBP recommendation on grass carp.
- Next ANS Task Force meeting will be May 7 – 9, 2018 in Lake Tahoe
- Goal Teams will by Feb. 15:
  - Develop a concise description of how the ANSTF will implement each of the Objectives within that goal and the constituent strategies as appropriate which should include key outputs.
  - Prioritize items listed above and suggest who might be best equipped to accomplish the work.
  - Make recommendations for refinements to strategies (as required for implementation).
- ANS Task Force will consider recommendations provided by Goal Teams in deciding whether to make revisions to the draft Strategic Plan.

## Wednesday –December 12, 2018

### 1. Welcome

David Hoskins (U.S. Fish and Wildlife Service) and Jennifer Lukens (National Oceanic and Atmospheric Administration) welcomed attendees and thanked them for attending. Thanks to Susan Pasko for her work preparing for the meeting.

Hoskins reviewed the agenda, which included presentations and updates on pathways of ANS (including aquaculture, recreational boating, and cultural release), the Boating Committee's Technical Information Report, and the Western Governors' Association's Biosecurity and Invasive Species Management Initiative. The second day of the meeting will be dedicated to breakout sessions that will consider implementation and potential outputs for the next ANS Task Force Strategic Plan.

Jennifer Lukens welcomed the group. She recognized the ANS Task Force members who volunteer their time from their regular jobs to move ANS priorities forward as well as the Regional Panels and committees who have also dedicated hours of personal time and expertise to ensure that the meeting action items are progressing and completed.

### *Self-Introductions*

ANS Task Force members and audience members introduced themselves. The list below includes both in-person and call-in attendees.

<b>Name</b>	<b>Affiliation</b>
James Ballard	Gulf States Marine Fisheries Commission, Gulf and South Atlantic Regional Panel
Kim Bogenschutz*	Association of Fish and Wildlife Agencies, Iowa Department of Natural Resources
Bill Bolen	U.S. Environmental Protection Agency
Elizabeth Brown	Western Regional Panel, Colorado Parks and Wildlife
Stas Burgiel	National Invasive Species Council Secretariat
Earl Campbell	U.S. Geological Survey
Tim Campbell	Mississippi River Basin Panel, Wisconsin Sea Grant and Extension
Stephanie Christel	Department of State
Al Confrancesco	Army Corps of Engineers
Greg Conover	U.S. Fish and Wildlife Service, Mississippi River Basin Panel
Lynn Creekmore	USDA - Animal and Plant Health Inspection Service
Kevin Cute	Northeast Regional Panel, Coastal Resources Management Council
Wesley Daniel	U.S. Geological Survey
John Darling	U.S. Environmental Protection Agency
Jeanette Davis	National Oceanic and Atmospheric Administration
Pam Fuller	U.S. Geological Survey
Jeffrey Herod	Bureau of Land Management
David Hoskins	U.S. Fish and Wildlife Service
Doug Jensen*	Minnesota Sea Grant
Erika Jensen	Great Lakes Commission , Great Lakes Panel
Su Jewell	U.S. Fish and Wildlife Service
Jay Kilian	MD Dept. of Natural Resources
Chris Korleski	U.S. Environmental Protection Agency
Mark Lewandowski	Maryland DNR
Jennifer Lukens	National Oceanic and Atmospheric Administration
Don Maclean	U.S. Fish and Wildlife Service
Craig Martin	U.S. Fish and Wildlife Service
Karen McDowell*	San Francisco Estuary Partnership
Marshall Meyers	Aquatic Stewardship Council
Whitman Miller	Smithsonian
Susan Pasko	U.S. Fish and Wildlife Service
Kelly Pennington	Minnesota Department of Natural Resources
Michael Rubino	National Oceanic and Atmospheric Administration
Dolores Savignano	U.S. Fish and Wildlife Service
Rebecca Schroeder*	Invasive Species Centre
Adam Sepulveda	U.S. Geological Survey
Hilary Smith	Department of Interior
David Wong	Massachusetts Department of Environmental Protection
John Wullschleger	National Park Service
Libby Yranski	National Marine Manufacturers Association
Dennis Zabaglo	Tahoe Regional Planning Agency
Paul Zajicek	National Aquaculture Association

\* On the phone

## 2. Adoption of Agenda/Approval of Minutes/Review of Past Action Items

Hoskins called for approval of the meeting agenda. The meeting agenda was approved unanimously without discussion.

Hoskins called for approval of the meeting minutes from the June 2018 ANS Task Force meeting in Silver Spring, Maryland. The minutes were approved unanimously without discussion.

Susan Pasko (ANS Task Force Executive Secretary) provided an overview on the status on the action items from the June 2018 meeting and October teleconference.

***List of Action Items from the June 2018 ANS Task Force Meeting***

<b>Action Item</b>	<b>Status / Notes</b>
The ANS Task Force Executive Secretary will distribute draft Goal Team priority objectives and strategies to the members and regional panels.	<b>Complete</b> Draft Goal Team priority objectives and strategies (notes from breakout session) were distributed immediately after the June meeting
Staff from USFWS and NOAA will refine draft goals, objectives, and strategies. The Draft will be reviewed during a mid-term conference call.	<b>Complete</b> The draft outline was reviewed during a teleconference on October 15, 2018.
Following the mid-term call, the draft goals, objectives, and strategies will be incorporated into a draft Strategic Plan.	<b>Complete</b> The draft Strategic Plan was distributed prior to the December 2018 meeting.
The ANS Task Force Executive Secretary will work with the regional panels to streamline grant reporting requirements.	<b>In Progress</b> Reporting under the new Strategic Plan will be coordinated with the format and timing of grant award interim reports.

***List of Action Items from the October 15, 2018 ANS Task Force Teleconference***

<b>Action Item</b>	<b>Status / Notes</b>
The ANS Task Force Executive Secretary will work with staff from the co-chair organizations to refine the outlined goals, objectives, and strategies and distribute the revised draft outline to ANS Task Force members and regional panels to vet within their forums or organizations.	<b>Complete</b> The refined outline was distributed to ANS Task Force members and regional panels on October 24, 2018
The ANS Task Force Executive Secretary will work with staff from the co-chair organizations to develop a draft Strategic Plan using the outlined goals, objectives, and strategies as a foundation.	<b>Complete</b> The draft Strategic Plan was distributed prior to the December 2018 meeting.

**3. Decisional: ANS Task Force 2016-2017 Report to Congress**

Jennifer Lukens, NOAA, reviewed the structure and content of the ANS Task Force 2016-2017 Report to Congress. Preparation of the Report was postponed during the Department of Interior's review of advisory committees. After the June ANS Task Force meeting, a draft report was distributed to members and regional panels for their review. All comments and additional input were addressed to produce a final draft.

The report highlights work conducted by the Federal and ex-officio members of the ANS Task Force and

its regional panels during Fiscal Years (FY) 2016 and 2017. This report is not a comprehensive summary of ANS efforts throughout the Nation, but instead illustrates the wide range of efforts occurring under the auspices of the ANS Task Force. Accomplishments in this report are divided into six ANS management goals: coordination, prevention, early detection and rapid response, containment and control, research, and education and outreach. Each of the Goal sections has a “spotlight” that highlights a significant achievement by ANS Task Force members or regional panels.

**Decision: ANSTF unanimously approved to conditionally approve the 2016 – 2017 ANS Task Force Report to Congress, pending final review by Federal agencies.**

#### 4. Decisional: ANS Task Force Strategic Plan

Hoskins review the progress in developing the ANS Task Force Strategic Plan for 2019-2024. Following the October ANS Task Force teleconference, the draft Plan was further refined based on comments received. The revised document was distributed to the members and regional panels for review.

Pasko provided an overview of the Strategic Plan planning process, guiding principles, as well as the Goals, associated Objectives, and desired Outcomes in the current draft Plan.

**Decision: ANSTF unanimously approved to conditionally approve the 2019 – 2024 ANS Task Force Strategic Plan, pending refinement of the strategies by the Goal Teams (see Action Items).**

#### 5. Presentation: New Species Occurrences

Pam Fuller, program lead of the USGS Nonindigenous Aquatic Species (NAS) Database, provided an overview of the recent alerts from the NAS Alert System, highlighting a few significant species. A total of 165 new alerts had been generated from the NAS database since July 2018, including 4 new species introductions into the United States and 16 species that have crossed state boundaries. Examples of ANS that have expanded their range include the eastern newt, Eggers’ nutrush, clown anemone fish, graceful cattail, round goby, and Cuban treefrog. Pam also reviewed the results of the NAS Flood and Storm Tracker (FaST) and its ability to assess species movement following flooding events. For example, following Hurricane Florence, NAS FaST identified the potential spread of giant applesnails resulting from flooding as well as the potential spread of giant salvinia after Hurricane Michael. These assessments offer the ability to develop monitoring and rapid response plans to minimize harm. Pam also provided an overview of the Western Governors Association Invasive Species Data Mobilization efforts. This project has reached to major invasive species data holders (NAS, Early Detection & Distribution Mapping System (EDDMapS), iMapInvasives, and USGS Biodiversity Information Serving Our Nation (BISON)) with the intent to develop a set of agreements to improve the reporting, exchange, and utilization of invasive species occurrence data. Thus far, the effort has resulted in a revision of the North American Invasive Species Management Association standards and agreement by the four providers to use the standards. The providers continue to work together to share data and reduce duplicate records with unique record identifiers. Finally, Pam announced her retirement from the Federal government. After January 31, 2019, Wesley Daniels (USGS) will be assuming many of the NAS database responsibilities.

Q: How long has Round Goby been spreading?

A: Round Goby entered the Mississippi River before the electronic barriers put in place.

Q: Who is reporting on Cuban Tree Frog?

A: Private citizens as well as USGS field crews. The USGS may deploy recording devices to confirm sightings.

Q: Are there any efforts to address giant salvinia infestations in the panhandle? What are effective tools for control and eradication?

A: Pesticides are sprayed on some infestation, yet the most effective measure is biocontrol using

beetles. However, the beetle does not survive in colder temperatures. Physical removal is often not effective as salvinia may double in size every 4 days and removals may need to be retreated with herbicides.

## 6. Presentation: Does Injurious Wildlife Listing Work?

In the next presentation, Su Jewell presented quantitative results showing how the effectiveness of injurious wildlife listings. Su has been serving as the Injurious Wildlife Listing Coordinator for the U.S. Fish and Wildlife Service since 2010. She is responsible for regulations that place species on the Federal injurious Wildlife list under the Lacey Act. The work presented, and draft paper, is a co-effort between herself (USFWS) and Pam Fuller (USGS). During the presentation, Su provided a brief history of the 1900 Lacey Act, including its intent and amendments. Currently 726 species are listed as injurious under the Lacey Act. Of those listed, salmonids and salamanders (429 species total) were listed not for being invasive, but because they can carry pathogens harmful to native communities; thereby, only the remaining 297 species were considered for this analysis. Of this 297, only 18 species (or 6%) were established in the United States at the time of listing. None of the other 279 species (or 94%) have become established since they were listed as injurious. It is difficult to demonstrate that listing was the direct cause of the species not becoming established as other factors including state regulations, market fluctuations, or ecological resistance may also contribute. Nonetheless, the failure of these species to establish in new habitats is called the prevention rate. The analysis of the injurious wildlife listings infer that listing a species as injurious before it becomes established is effective in preventing its establishment. Accordingly, the USFWS should continue to list preemptively by accessing non-native species that are not yet established in the United States and listing those determined to be high risk.

Q: Does USFWS have records of active interdiction? This may give information about propagule pressure.

A: This was not part of the analysis; USFWS Law Enforcement may have these records.

Q: Of the 297 species, have there been any introductions that have failed to establish?

A: If is unknown. Some species may have been introduced, but it went undetected since the species did not establish or become problematic.

Q: What is the process for listing a species as injurious in the United States?

A: There is not a formal process, individuals or groups may petition for the listing of a species which may initiate an analysis within USFWS. If the USFWS finds reason to list the species, the rule will go through the regulatory process, which includes a public comment period. Congress can also list species, as recently occurred with the quagga mussel.

## 7. Presentation: Cultural Release Study Update

Tim Campbell, an outreach specialist for the University of Wisconsin Extension, the University of Wisconsin Sea Grant Institute, and the Wisconsin Department of Natural Resources, provided an update on the study being conducted by the Mississippi River Basin Panel and University of Wisconsin study to better understand the Buddhist practice of life release. This practice is a known pathway for invasive species in Asia, but it is currently unknown if this practice has resulted in ANS introductions in the United States. The scope of the study presented was to explore the extent of the life release practice happening in the United States, e.g., who is practicing, how often, what is being released, and the requirements of the practice. The study methods included literature review, practitioner interviews, and professional surveys. Preliminary results have revealed that the Buddhists practice may be tied more to cultural tradition, rather than religious practice. After the study is complete, communication products will be produced to promote best practices for release as well as list species that are prohibited for release or have the potential to become invasive. The goal is to help practitioners meet the intent of the practice in an environmentally sustainable manner and reduce invasion risk.

## 8. Presentation: Melting Sea Ice, Accelerated Shipping, and Arctic Invasions

Whitman Miller, Director of the National Ballast Information Clearinghouse at the Smithsonian

Environmental Research Center, presented research to explore the marine invasion potential resulting from shipping in the Arctic. As the extent of sea ice coverage continues to decline, Arctic waters are becoming more navigable to commercial ships, shortening transit times, and increasing the connectivity to distant bioregions. In addition, melting sea ice results in reduced salinity and changes in oceanic circulation. These changes are expected to shift global trade patterns, affecting the composition and survivorship of associated biota. Research is just beginning to explore the potential consequences of these changes to invasion dynamics. There has already been species introductions into the Arctic, both intentional and unintentional. Risk assessments are currently being performed to predict habitat suitability and determine potential species impacts. Mesocosms are also being used to simulate ballast conditions (e.g., temperature and salinity) to determine species survival rates and possible management practices.

Q: Do the models include salinity? Can this parameter be separated from temperature?

A: Yes, the models run simulations for changing temperature, salinity, both parameters, and well as a control.

## 9. Informational: Aquatic Invasive Species Management Decision-Making.

Dr. Ted Grosholz (University of California, Davis) and Dr. Stephanie Green (University of Alberta) provided an overview of a survey they conducted in 2018. The survey included AIS managers responsible for management decisions across various levels (local, state, federal) throughout the US and Canada to determine how they made decisions about AIS management and synthesize perceptions of resources available for ANS decision-making, including federal ANS management plans. They received ~200 responses from managers to a range of questions including their experience with AIS management, which species and management actions they have undertaken in their work, and the importance of sources they relied for management decisions including species-specific and state/regional ANS Management Plans. Priority species reported include zebra/quagga mussels, Eurasian watermilfoil, New Zealand mudsnails, Asian carp, and lionfish. Preventing establishment of species not yet in a jurisdiction was the top management priority for most, with a majority reporting that efforts have been very or somewhat effective in this area. Suppression of existing populations was perceived as less successful. Most respondents were familiar with National ANS management plans; there was a correlation between the perceived plan effectiveness and knowledge of plan. Decisional support and general information were identified as the most useful aspects of National ANS management plans. Outreach and monitoring support were identified as the least useful components. Suggested information to increase the utility of National ANS management plans included more funding and resources for implementation, increase applicability of guidance to local context, and guidance on regulatory or legislative changes. Once review of the preliminary data is complete, the next steps will be to analyze decision-making and intervention efficacy by region and across focal species, process text responses regarding challenges and opportunities for increasing intervention efficacy, and combine insights on decision-making and interventions with ecological data on ANS distribution and impacts. These findings will be distributed to the respondents, presented at ANSTF regional panel meetings, and submitted for peer-review.

Q: For plans not as well known, what strategies could be used to better position the plans and improve communication?

A: It is possible that some plans do not exist for species of interest. Also need to think harder about how to distribute and update the plans as well as develop a social media presence.

Q: Prevention was perceived as most effective, but on the ground effects weighted toward control and eradication. Any insights as to why?

A: We have some verbal responses addressing this, but have not completed the analysis.

## 10. Presentation: Aquaculture and Aquatic Invasive Species

Michael Rubino, the Director of the Office of Aquaculture at NOAA's Fisheries Service provided a brief update on the Department of Commerce/NOAA aquaculture activities and renewed efforts to coordinate federal regulatory and science priorities for aquaculture through the Subcommittee on Aquaculture under the

National Science and Technology Council. The commercial marine aquaculture sector is growing with the most common species being imported are shrimp, salmon, tilapia. Aquaculture permitting can be complicated at multiple levels and involve multiple federal and state agencies. Efforts have begun to make the process more efficient and predictable. Research is also ongoing to better understand environmental aspects such as effects on wild populations. Invasive species risk in marine aquaculture in the U.S. historically has been highest with non-native mollusks, with fewer issues posed by anadromous and marine fish. Expansion of aquaculture, if done without proper and legally required management practices, may increase the risks of negative environmental impacts. Best management practices have been developed and are being refined to address these issues. Only indigenous or naturalized species have been proposed for commercial aquaculture in open fresh or marine waters in the U.S. in recent years.

## 11. Update: Boating Committee and Technical Information Report

Dennis Zabaglo, the Aquatic Resources Program Manager for the Tahoe Regional Planning Agency, summarized the activities of the Boat Industry Partnership ad hoc committee. This committee worked with the boat industry through the ABYC Professional Technical Committee to complete a Technical Information Report. The Report recommends specific design and construction features that should be considered when boat manufacturers design and construct specific features of boats. These design and construction recommendations have been developed and approved by an ABYC committee comprised of recreational boat manufacturers, engine manufacturers, state agency representative and other recreational boating industry experts. These recommendations for watercraft and accessory manufacturers are expected to make it easier for boats to clean, drain and dry their vessels. New designs also may help inspectors to more thoroughly and quickly inspect and decontaminate boats at boat ramps, minimizing the time boaters must spend at these stations.

ABYC has since published a technical paper, "Design and Construction in Consideration of Aquatic Invasive Species." A grant has been issued to ABYC to conduct outreach to further promote the standards within the boating industry. ABYC's AIS Project Technical Committee was also awarded the Special Recognition Award from the State Organization for Boating Access. This award is presented to an individual, group, organization or political subdivision in recognition of activities singularly illustrative or supportive of SOBA's mission.

Q: Any discussion of conducting a formal evaluation of the technical report?

A: No, but anticipate regular check-ins with industry.

## 12. Update: Recreational Boating and Aquatic Nuisance Species

Elizabeth Brown, Colorado Parks and Wildlife, summarized recent research related to zebra and quagga mussel suitability within internal boat compartments. The Utah Division of Wildlife Resources and U.S. Bureau of Reclamation conducted a Veliger and Adult Quagga Mussel Viability Study to document veliger and adult quagga mussel survival rates after passage through two common ballast pumps. The study found that veliger survival was high and similar between pump types and adult mussels can be pumped into ballast tanks and survive. A Minnesota study collected over 300 residual water samples at two high-use zebra mussel infested water bodies to use in live well and ballast mortality trials. The trial revealed that veligers can be found in small amounts of residual water, ballast tanks have the greatest potential for transporting veligers, and zebra mussel veligers do not survive long in residual water of live well or ballast tanks, but they do survive.

To inform the work of the boat manufacturers ad hoc boating committee and the ABYC AIS Technical Committee, Colorado Parks and Wildlife (CPW) performed testing of decontamination unit efficacy. Temps were tested with a digital USB thermometer, which revealed that water exit temperatures on pressure washers being used for decontamination could vary by as much as 30°F per minute. As a result, and along with other factors, the WRP created a decontamination think tank committee which created a standard specification sheet for decontamination units. The CPW bid out that WRP spec sheet and purchased new and improved units that the manufacturer, Royce Industries, claimed would hold temperature. They did not work, and the units were recalled. ABYC committee members suggested trying new technology and moving away from pressure washers. CPW designed and built new innovative decontamination unit utilizing on demand hot water. These

hook directly into electrical power and a water source, and use propane fuel to heat the water. The new units are easier to maintain and hold a constant temperature, but are not capable of high pressure at this time and therefore are not suitable for a full decontamination of mussel infested watercraft. CPW is continuing to investigate solutions to add pressure and make these units' portable. This alternative to pressure washers is continuing to be developed, as pressure washers have been determined to be the wrong tool for the job.

The Western Regional Panel's decontamination think tank committee is working to develop and improve standards and provide a forum for dialogue, collaboration, and problem solving among watercraft inspection and decontamination station key personnel. They are also working on furthering standards for inspection and decontamination protocols. Future research needs include New Zealand mudsnail and Eurasian watermilfoil viability in engines and ballast tanks and determination of the appropriate methods to decontaminate ballast tanks.

Libby Yranski, National Marine Manufacturers Association (NMMA), presented an overview of boating industry activities. These included promotion of the ABYC Technical Information Report on design in consideration of AIS, boater education on AIS, and working with State, Federal, Environmental and Industry groups to ensure the development of smart and practical regulations. NMMA has recently published an AIS position paper and called upon leaders in the Boating and Fishing Industry's to come together and form one coalition to help efforts on the Federal and regional levels.

Q: As temperature and length of time are important, why use adult mussels in tests since they don't swim in the water?

A: Adults are no longer just attached to structures. In recent years in Lakes Powell, Havasu and Mead, mussels are exposed to lower water and found floating on the surface of the water. As a result, live adult mussels have been found in sea strainers, engines, and ballast tanks. Mussels are behaving differently in Powell and the Lower Colorado river than previously documented elsewhere in the US.

Q: Are there any vendors that market high temperature pressure washers?

A: Pressure washers will maintain a constant temperature at much higher temps over 200F. ANS Programs must operate at 120-140F in order to avoid damaging watercraft.

Request for NMMA to distribute its position paper to ANS Task Force members.

### 13.Update: 2016 Yellowstone River Fish Kill

Adam Sepulveda, a Research Zoologist at the USGS Northern Rocky Mountain Science Center, discussed the recent proliferative kidney disease (PKD) fish kill in the Yellowstone River, which was initially thought to be a result of a novel invasive species, climate change, and increasing human use of the river. Interest in PKD was ignited during the 2016 Whitefish kill in the Yellowstone River, which resulted in the closure of 183 river miles and tributaries. Given the economic importance of captive and wild fish populations, there is an urgent need to understand the ecology and epidemiology of the parasite that causes PKD in salmonid fish. The event was hypothesized to be the result of unprecedented environmental conditions, introductions of new strains, changes in bryozoan populations, or a combination of these factors. Environmental conditions may have played a role, but base flows and surface temperatures were similar to previous years. In addition, nearby rivers exhibited similar conditions, but did not experience mass fish mortality. The parasitic bryozoan (*Tetracapsuloides bryosalmonae*) was found in archived samples of the Yellowstone river, thus ruling out an introduction. New molecular tools to survey and monitor are being developed to determine bryozoan distribution and diversity in the Yellowstone River.

Q: How long does it take for fish to get infected?

A: Once infected, fish may be able to pass the disease on throughout their life.

Q: Are there other variables that would distinguish high kill zones?

A: We are questioning why whitefish are the primary host; perhaps different thermal tolerances and immune response. Also looking into differences in water quality, such as higher nitrogen.

Q: In many organisms, population density is a factor in disease. Could this be an issue with the whitefish?

A: State agencies tend to focus on trout, there is little data on whitefish population size or structure. This knowledge is currently expanding. Population density is a hypothesis, but sections of the Yellowstone River also has high densities of trout and other rivers have high densities of whitefish. The fish that died in Yellowstone represented all sizes, yet similar fish kills in Europe have been limited to juveniles.

#### **14. Update: Western Governors' Association, Biosecurity and Invasive Species Management Initiative**

Bill Whitacre manages the "Biosecurity and Invasive Species Management Initiative" of Hawaii Governor David Ige, and provided an update on the progress of the initiative thus far and gave a report on the upcoming initiative webinars and final initiative report. The Initiative focuses on the impacts that nuisance species, pests, and pathogens have on ecosystems, forests, rangelands, watersheds, and infrastructure in the West, and examines the role that biosecurity plays in addressing these risks. The goal is to examine emerging issues in biosecurity and invasive species management in the West, and develop a set of policy recommendations, best practices, and technical tools to address those issues. The initiative held several workshops in the Fall of 2018 that focused on Prevention, Control, and Management of Established Species (Lake Tahoe, Nevada, Sept. 17-18, 2018), WGA Working Lands Roundtable: Invasive Species and Restoration (Cheyenne, Wyoming, Oct. 11-12, 2018), Early Detection and Rapid Response (Helena, Montana, Nov. 14, 2018), and Biosecurity and Agriculture (Kona Coast, Hawaii, Dec. 9-10). Additional workshops are being planned for 2019. An Invasive Mussel Leadership Forum is planned for January 2019 to collectively determine common interagency priorities for the prevention and containment of invasive zebra and quagga mussels in the Western U.S. and identify a shared interagency strategy to address these priorities. Deliverables of the Initiative include a WGA Policy Resolution on Combating Invasive Species (expected June, 2019), Initiative Report (expected June, 2019), and a WGA Western Working Lands Roundtable (Ongoing).

Q. Is An Invasive Mussel Leadership Forum meeting open to everyone?

A: WGA events are by invitation only, but contact Bill if interested in attending. There may be room once invited guests have RSVP'd.

#### **15. Questions on Member Update Submissions**

Written updates from the ANS Task Force members and regional panels were distributed prior to the meeting. Time was given for ANS Task Force members to ask for additional information or clarification on any of the updates. There were no questions or comments.

#### **16. Informational: Regional Panel Recommendations**

##### **Western Regional Panel**

1. Funding: maintain and/or increase financial allocation to the panel(s) to support annual meetings, coordination and panel activities.

Response: We recognize that Regional Panels provide essential coordination and work production for the Task Force at the Regional and local levels. As described at past meetings, sequestration resulted in a significant deficit within the AIS program in FY13 and we continue to have to make difficult budget decisions. In FY 18, regional panel funding will continue at \$40K/Panel.

2. Funding: maintain funding to support highest priority components of QZAP

Response: The ANSTF Co-chairs support this recommendation. The U.S. Fish and Wildlife Service continues to support the implementation of QZAP through the funding of the State/Interstate ANS Management Plans and through grant support for projects to control the spread of invasive mussels.

##### **Great Lakes Regional Panel and Mississippi River Basin Panel**

1. The Mississippi River Basin Panel (MRBP) and Great Lakes Panel (GLP) urge the appropriate federal agencies to implement recommendations #6 – 8 contained in the MICRA report to the USFWS entitled

“The use of grass carp in the United States: Production, triploid certification, shipping, regulation, and stocking recommendation for reducing spread throughout the United States”. Specifically, those recommendations are as follows:

- (6) Modify the scope and Standards of the USFWS National Triploid Grass Carp inspection and Certification Program (NTGCICP), including direct participation of states and Grass Carp distributors.
- (7) The USFWS should work with states, triploid Grass Carp producers, and other partners to develop defensible ploidy testing procedures for quality control and law enforcement purposes in support of state random inspection programs.
- (8) Develop and provide information about NTGCICP, Grass Carp regulations, and best management practices for natural resource managers, aquaculturists, and the general public.

**Response:** This recommendation was submitted on December 8, 2018. The ANS Task Force co-chairs will require additional time to coordinate with appropriate members of the ANS Task Force to determine what level of implementation is possible.

**Q:** What is meant by defensible testing?

**A:** ploidy testing procedures that can be done in the field and can be used in court to hold up a shipment.

## 17. Public Comment

None.

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# Thursday –December 13, 2018

## 18. Welcome

The ANSTF co-chairs welcomed attendees to Day 2 of the meeting. David welcomed the group and reminds everyone that this morning the agenda will include breakout sessions to discuss how to move the collective goals within the draft ANS Task Force Strategic Plan forward.

## 19. Goal Team Report Outs and Discussion

ANS Task Force members and regional panel representatives divided into 6 Goal Teams (each representative serving on two Teams). The Goal Teams, which align to the strategic goals in the draft 2019-2024 ANS Task Force Strategic Plan, were Prevention, Early Detection / Rapid Response (EDRR), Control / Restoration, Outreach and Education, Research, and Coordination. Each Goal Team discussed the draft objectives and strategies associated within their assigned goal from the draft ANS Task Force Strategic Plan for 2019-2024 and brainstormed next steps for implementation and refined a list of outputs to be completed over the next 5 years. After the breakout sessions, the Goal Team gave a summary of their discussion to the full group, leading into a group discussion on their recommendations for implementation of the Strategic Plan.

### *Prevention Goal Team*

The Prevention Team reviewed each objective associated with the Prevention Goal and brainstormed potential outputs that could be completed within the next 5 years under the auspices of the ANS Task Force. Under the first objective (Evaluate and refine science-based risk analysis procedures to assess potential ANS and pathways for introduction), the team identified developing a clearinghouse for risk assessment, risk analysis, and HACCP plans; drafting standard pathway risk analyses processes; and updating the 1996 Generic Risk Analysis as potential outputs. For the second objective (Identify priority pathways and species of concern), creating a list of pathways and species risk assessment results, digitizing imports to the species level, and refining pathway risk assessments to include the unregulated internet were identified as potential outputs. For the last objective under the Prevention Goal (Encourage implementation of measures to manage high priority pathways and species), potential outputs identified by the team included developing National Prevention

Practices (e.g., BMPs) for various industry sectors, developing a decision process to prioritize pathways and species by level of impact, and creating a centralized database of State and Federal Regulations.

During the group discussion it was noted that many of the strategies within the Prevention Goal seems to be steps to complete the objective and may require further refinement to develop appropriate and feasible outputs. Also, the ANS Task Force will need to determine what is needed to expand and update its website in order to serve as a clearinghouse for materials and documents.

### *Early Detection/Rapid Response Goal Team*

The EDRR Team reviewed the strategies under each objective and identified potential outputs for those items for those they considered the highest priority. Upon review of the first objective (Facilitate monitoring efforts to detect and report new sightings of ANS), the group recognized that efforts to assess the effectiveness of existing monitoring initiatives had been done approximately 10 years ago, and did not receive much attention from the ANS community. The team suggested that a better approach may be to identify existing monitoring efforts that are effective, rather than assess effectiveness. The team recommended that such efforts, and their associated methods, should be shared in a central repository. The team also identified that a strong, consistent definition for horizon scanning was needed. They urged the ANS Task Force to draft this definition along with national guidance to identify high priority areas and taxa.

During its review of the second objective (Develop processes to rapidly assess new species detections and determine appropriate management actions), the team discussed the use of the ANS Task Force Expert Database, questioning who uses the database and for what purpose. The team recommended that the ANS Task Force consider an assessment to determine how the database is being used and what can be done to increase its utility and facilitate EDRR preparedness and implementation. Integrating eDNA into decision support tools was also identified as important, but will require developing standards for eDNA detection and reporting (e.g., minimum standard, technique used, confirmation using other tools). The team also noted that other groups are working to develop eDNA standards. Accordingly, the ANS Task Force should identify and coordinate these groups to avoid duplicative efforts which may lead to multiple standards. The target should be to compose a national guidance document for standardization of techniques, interpretation of results, and decision-making. Similar to the evaluation of existing monitoring efforts in the previous objective, the team recommended an analysis of rapid response successes and the creation of a centralized repository for templates and other materials. For the final EDRR objective (Facilitate the development of capacities to respond rapidly to new invasions), the team identified a need to maintain a list of agency partners and stakeholders with EDRR capabilities along with existing or potential regional pilot projects. The team also recommended development of a white paper to explore options and barriers to establishing an emergency rapid response fund.

The Goal Team recognized that additional work is needed to identify the highest priority work how to operationalize efforts, emphasizing that many groups contribute to EDRR efforts, and the role of the ANS Task Force may be to provide guidance, technical support, and background documents and templates for work to be conducted. The team also recommended that the ANS Task Force should coordinate with the National Invasive Species Council to implement the EDRR Framework and build capacities for a national EDRR network. A clearinghouse to store information related to EDRR tools and limitations, response plans, and success stories was identified as a need by several parties, thus the team recommended that the ANS Task Force should strive to fulfill this need.

### *Control and Restoration Goal Team*

The control and restoration team reviewed each objective under the goal and identified potential outputs for each of the strategies. For the first objective (Coordinate the development and implementation of ANS Control and Management Plans), the team recognized that an information request on status and needs of the ANS Task Force-approved plans should be sent to plan leads and that this information should be analyzed and summarized into a report. The team also agreed that a formal process to develop additional ANS Control and Management Plans is needed and should include procedures for nomination, criteria to determine if the plan should be developed, and instructions for plan development. For the second objective (Identify and

communicate effective control and restoration techniques), potential outputs included a clearinghouse for management options for priority species and pathways, a checklist for control and restoration activities to minimize the likelihood of ANS introductions, and a report on ANS-related control and restoration activities and success stories. For the last objective (Identify gaps in available control and restoration measures and encourage innovation), potential outputs identified by the team included an analysis of gaps in control options for priority species or habitats and a process to communicate research results or tools developed that address those gaps.

### *Research Goal Team*

The research team reviewed each of the goal objectives and considered how to make the ANS Task Force relevant to the research community. Under the first objective (Identify and prioritize research needs, including emerging technologies), the group identified the development of an annual priority research list on both regional and national level as a potential output. This list could also include the mechanisms to facilitate innovation/techniques that require multiple year investment and a communications plan to promote the research needs to relevant audiences. The team also recognized that some reordering of the strategies may be needed as some of the strategies under the second objective are more applicable to the first objective and its potential outputs. Proposed outputs for the second objective (Facilitate research activities to assist ANS management efforts), included development of a white paper to explore potential funding models for high priority research needs, thus developing a model for the ANS Task Force research grant program. For the last objective (Track and disseminate study results to incorporate into ANS management decisions and activities), the team identified a needs for a clearinghouse to track utilization of research tools and techniques. Once created, the team recommended that the ANS Task Force annually review progress on items from its priority research list and compose a summary report.

### *Education and Outreach Goal Team*

The Education and Outreach team reviewed the first objective (Evaluate ANS communication, education, and outreach efforts to ensure they are consistent and effective) and recognized a need to define what constitutes a campaign. Once defined, a list of applicable campaigns and outreach efforts that fall under the auspices of the ANS Task Force should be generated. The team also recognized a need to define measures for effectiveness and necessary results to consider a campaign successful. Potential outputs under this objective recommended by the team included the development of an ANS campaign assessment report (e.g., Stop Aquatic Hitchhikers, Habitattitude, Recreational guidelines). To inform this report, the team recommended that the ANS Task Force survey its members and regional panels as well as private, state, and local entities to compile existing outreach materials. The team also urged the ANS Task Force to use the survey to compile a list of social science research needs. Under the second objective (Develop processes to share information and consistently implement ANS outreach strategies), potential outputs for the ANS Task Force included defining what an community of practice would entail and identifying leaders in the AIS outreach community to participate. Once established, the team recommended that the ANS Task Force focus on providing professional development to the community of practice (e.g., workshops, webinars). Additional output recommended by the team under this objective included developing a clearinghouse for outreach materials, finishing the Stop Aquatic Hitchhikers website portal, developing standards for evaluation data collection and analysis, and promoting and evaluating the use of products developed under the auspices of the ANS Task Force. A potential output for the final objective (Raise the profile and communicate priorities of the ANS Task Force), was to develop and annually update a briefing about the ANS Task Force and its regional panels that could be distributed to agency leadership and legislators. The briefing may include what the ANS Task Force does, key issues, success stories, and other talking points. The team also recommended providing templates for regional panels and state agencies to use for their public facing outreach to ensure ANS messaging is clear and consistent. The primary recommendation from the team was to reinstate or create a new full time permanent position in USFWS to provide expertise, coordination and take action to accomplish shared objectives for a national coordinated and effective education campaign which changes behavior of users to prevent ANS movement.

### ***Coordination Goal Team***

The coordination team reviewed each objective under the goal and identified potential outputs for each of the strategies. For the first objective (Strengthen ANS Task Force operations to provide effective communication, information sharing, and decision making), potential outputs recommended by the team included continuing to hold two ANS Task Force meetings each year, developing bylaws with membership and operating procedures, developing an information packet for new members, updating the ANSTF website, and writing a communications plan that defines the type of information generated from the ANS Task Force and how and to whom it should be communicated. Under the second objective (Strengthen the capacity for ANS management at State and regional levels), potential outputs identified by the team for the ANS Task Force included providing technical assistance for State and Interstate ANS Management Plan development and holding at least one Regional Panel Principal meeting per year. Discussion of the last objective (Construct a national assessment of the ANS Program for waters of the United States) led to the team's recommendation to refine the reporting process for members and regional panels under the new Strategic Plan, develop an annual report to assess progress on the Strategic Plan, incorporate a Special Awards Condition into grant agreements for State and Interstate ANS Management Plans to allow for a more consistent collection of plan accomplishments, prepare a Report to Congress on a regular basis, and annually convene a meeting for ANS Task Force Federal members to provide a forum for strategic discussion of the alignment of authorities, budgets, and implementing the ANSTF Strategic Plan.

### **20. Public Comment**

None.

### **21. Meeting Summary**

A list of final action items and decision items was discussed (see above).  
The December 2018 ANS Task Force Meeting was adjourned.