An Introduction

Lisa Moss, Panel Coordinator

U.S. Fish & Wildlife Service

Charles City, VA

http://www.midatlanticpanel.org

Mission Statement

The mission of the MAP is to assist state and federal agencies and other stakeholders in developing and implementing strategic, coordinated, action-oriented approaches to prevention and control of aquatic invasive species in the Mid-Atlantic region.

National Geographic: nutria

Who is MAP?

- Individuals from state and federal agencies, private and commercial interests, regional entities, and academic institutions
- Established in 2005
- Represents DE, DC, MD, NC, NJ, NY, PA, VA, WV

Photos: MD DNR, MI Sea Gant, MN Sea Grant, USFWS, USGS

MAP composed a comprehensive "focus" list of 49 species derived from multiple databases, including the USGS Non-Indigenous Aquatic Species Database.

2009 MAP Priorities

- Encourage states to develop an AIS management plan
- Implement AIS management plans
- Work with the Environmental Law Institute to examine regional coordination efforts for preventing the spread of AIS
- Utilize existing national databases to map distributions of AIS in the region
- Build on current regional efforts in early detection of new or expanded AIS populations and rapid response to invasions

MAP Small Grants Program

- Encourages broad participation-government agencies, academic institutions, NGOs, watershed, landowner and community groups, and Tribes
- No matching funds required but equal or 2:1 match recommended and considered favorable
- Ranking criteria-regional relevance to MAP mission and priorities with emphasis on outcomes and applications
- Applicants must discuss proposals and gain written support from respective MAP state member

2009 MAP Funded Projects

- Pilot Project for Data-Driven Nutria Study and Removal from Nags Head Woods Ecological Preserve
- Coordination of Regional Monitoring Network and Implementation of Web-based Reporting System to Determine Status of the Chinese Mitten Crab in the Chesapeake and Delaware Bays and Mid-Atlantic Coast
- Estimating risk of fish invaders in the Mid-Atlantic region
- Aquatic Invasive Species Field Guide for Pennsylvania
- Outreach Regarding Virginia's Phragmites Invasion

Rapid Response Planning for Aquatic Invasive Species

Jessica Smits and Fredrika Moser

Maryland Sea Grant, College Park, Maryland, U.S.A., www.mdsg.umd.edu

Abstract

Photograph courtesy of USGS

Prevention is key to halting unwanted introductions of non-native species, but managers must also be prepared to take action when prevention measures fail. To foster effective responses to aquatic invasive species introductions, Maryland Sea Grant worked with the Mid-Atlantic Panel on Aquatic Invasive Species and its partners to develop Rapid ResponsePlanning for Aquatic Invasive Species. This rapid response plan uses Incident Command System (ICS) — a response approach well known for its effective application to environmental disasters like wildfires and oil spills. ICS provides a common language and a step-by-step guide to organizing response efforts. It helps individuals from various agencies and jurisdictions work together as a well-coordinated unit. Use of ICS for invasivespecies incidents — a relatively new endeavor — is backed by the congressionally-mandated Aquatic Nuisance Species Taskforce and the National Invasive Species Council.

Template and Maryland Example

The National Invasive Species Council defines rapid response as a systematic effort to eradicate, or contain invasive species while infestations are still localized (NISC 2008). To be most effective, a response to an introduction should occur quickly. Organizing an appropriate response requires significant coordination and analysis.

To foster a timely, effective response to recent aquatic invasive species introductions,Maryland Sea Grant worked with the Mid-Atlantic Panel on Aquatic Invasive Species (MAP) and other partners to produce Rapid Response Planning for Aquatic Invasive Species. The planis available in two formats: (1) A Template and (2) A Maryland Example.

The template is available as a Microsoft Word document to encourage states in theMid-Atlantic and beyond to adapt the plan to their specific needs while maintaining thevalue of a common framework across the region. Maryland was the first state to completethe template, and its resulting plan is available for use as an example. Anyone may download both the template and Maryland example at www.mdsg.umd.edu/rapidresponse. The state of Delaware has also used the template and is currently finalizing its plan.

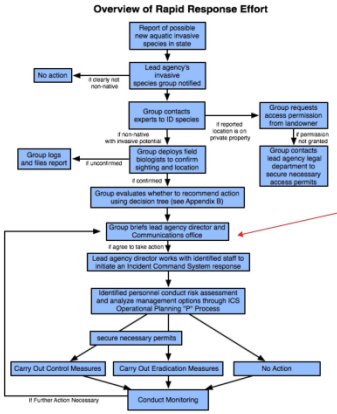
Incident vs. Issue

This Rapid Response Plan addresses an invasive species "incident," rather than an invasive species "issue." An incident is an isolated introduction of a species that has yet to become established in the ecosystem, whereas an issue is an ongoing challenge with an established non-native species.

Incident Command System

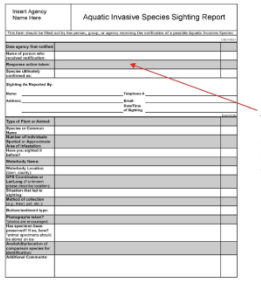
The foundation of the plan is Incident Command System, a standardized protocol that allows for a common response framework across agencies and jurisdictions. Incident Command System (ICS) has earned a reputation as an "all risk, all hazard" response tool. Originally developed by the Forest Service, and now recommended by the Aquatic Nuisance Species Task Force, agencies such as NOAA, EPA, and the Department of Homeland Security use ICS to improve response to incidents from natural disasters to oil spills. The use of unified command and common terminology allows effective communication and coordination across agencies and jurisdictions transforming an often haphazard initial reactive response into a successful proactive response (Deal 2006).

Major Components of Plan



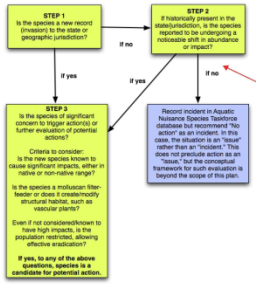
Overview of Rapid Response Effort Flowchart

This flowchart details the general plan of operations for responding to a possible AIS incident. The step-by-step view of the entire Rapid Response effort provides a holistic understanding of what needs to be accomplished in response to a new introduction.



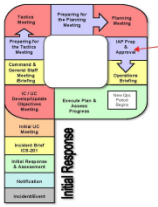
Aquatic Invasive Species Sighting Report Form

Gathering critical information on an invasive species sighting is the first step to an effective response. This form streamlines the information-gathering process.



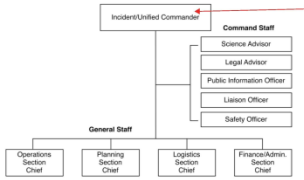
Decision Tree for When to Take Action on Aquatic Invasive Species

Deciding whether to take action on an invasive species is a crucial component of any Rapid Response Plan. This tree breaks the decision down into three steps.



The Planning "P"

Developed by the United States Coast Guard, the Planning "P" is a visual representation of the Incident Command System planning process. The Rapid Response Procedure is based upo the steps outlined in the Planning "P."



Incident Command System (ICS) Job Descriptions

ICS position titles enable responders speak a common language to avoid t confusion that may come when diffe agencies, with differences in termino all respond to thesame aquatic invas species incident. These descriptions h to ensure that those chargedwith responding to an incident clearly understand their responsibilities.

Discussion

We concur with the endorsement by the Aquatic Nuisance Species Task Force and the National Invasive Species Council, that for managing a complex, multiagency analysis and eradication plan, the ICS approach is particularly robust. In addition, the ICS was used effectively for managing the recent invasion of an invasive forest pest, Agrilus planipennis (Emerald Ash Borer), in the Mid-Atlantic region.

The Rapid Response Planning for Aquatic Invasive Species manual recognizes that not all recently-introduced invasive species may warrant a formal rapid response effort. By using the decision action tree and the rapid response effort flow chart presented in this plan, many scenarios for responding to recent introduction may be crafted. The level of engagement may use very little if any of the ICS conc While ICS may initially seem daunting to those unfamiliar with it, we find that the common languag ICS is highly relevant, well tested and leads to sound planning and action on complex emergency issu We strongly encourage the invasive species management community to consider the approach presen here seriously. By becoming familiar with ICS and using this plan as a guideline, managers will be ab respond quickly and effectively when faced with the threat of a recently-discovered aquatic invasive sp

Acknowledgements

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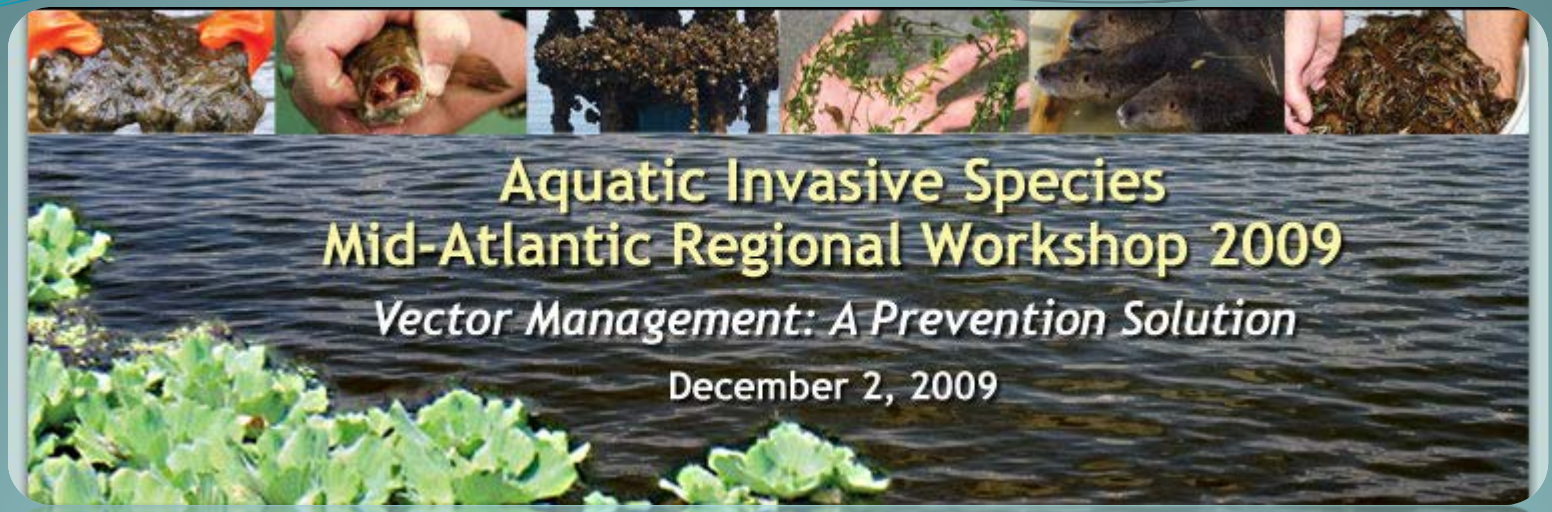

Admiral Fell Inn Baltimore, MD

This one-day event will bring regional attention to aquatic invasive species introduction pathways. We strongly encourage anyone with an interest in the science and management of invasive species to attend.

The workshop will focus on preventing the introduction of non-native aquatic species through vector management by providing strategic recommendations states, local governments, NGO's, legislatures, the Chesapeake Bay Program, the Mid-Atlantic Panel, and others can pursue to manage vectors and prevent unwanted introductions.

The Mid-Atlantic region has an important and timely opportunity to move beyond managing individual species and toward a more holistic approach of managing pathways - vectors for invasions.