

Annual Report for USFWS Grant F12AP01037

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Fiscal Agent: Maryland Sea Grant College

Annual Report to the Aquatic Nuisance Species Task Force for 2016

The mission of the Mid-Atlantic Panel (MAP) is to assist state and federal agencies and other stakeholders in developing and implementing strategic, coordinated, and action-oriented approaches for the prevention and control of aquatic invasive species (AIS) in the mid-Atlantic region. The driving force behind the Panel's mission is to strengthen cooperation, coordination, and communication on AIS issues within the region and beyond.

Funding from USFWS is used to support MAP business, including coordination and logistics for MAP meetings, travel for MAP participants at ANSTF meetings and regional panel meetings, the MAP website, the MAP small grants competition, and payment for fiscal management services provided by Maryland Sea Grant.

Panel Coordination

The spring MAP meeting was held May 17-18, 2016 in Annapolis, MD. The meeting focused on ongoing and completed work accomplished by our small grants competition awardees. The panel reviewed the completed "Invasive Species Toolkit for Educators" project, including the contents of new AIS trunks that have been delivered to AIS coordinators in each of the mid-Atlantic states. A detailed curriculum document is also available on the website for the project (http://dnr2.maryland.gov/wildlife/Pages/Education/Aquatic-Invasive-Species-Education-Program.aspx) and as a download from the Mid-Atlantic Panel project page (http://www.midatlanticpanel.org/research/funded-projects/projectc/). Second, the panel received a report out on and request for final approval of its revised website (see below). Third, the panel received updates and discussed timely topics including VIDA, boat inspection and decontamination programs, and the business of the ANSTF and state representatives. Finally, the panel deliberated and made decisions on the spring 2016 small grants competition as well as the budget for 2016-2017.

The fall MAP meeting was held November 15-16, 2016 in Annapolis, MD. The meeting focused on local AIS issues in Maryland as well as updates on ongoing projects and business. The Chair and ANSTF Exec. Sec. provided updates on recent efforts on the national front as well as the ANSTF reporting exercise. Local topics included the Chesapeake Bay Nutria Eradication Program, zebra mussel status, local didymo biogeography, and the Maryland Invasive Species Plan. Final reports were also received on the "Mid-Atlantic Field Guide to Aquatic Invasive Species" and the "New

Zealand mud snail" small grant projects. Distribution of the field guide to mid-Atlantic state representatives will occur during winter 2017. The meeting concluded on Wednesday with a tour of the Smithsonian Environmental Research Center facilities and discussion of current invasion ecology research being undertaken there.

Led by Maryland Sea Grant designer, Jenna Clark, a MAP subcommittee completed a redesign of its website and logo during the first half of 2016. New logo and branding materials were made available to panel members and are downloadable from the site. Maryland Sea Grant provided training and a guidebook to those who will be maintaining the site. The new WordPress interface allows our staff to quickly update projects, meeting information, and panelist information with a minimum amount of coding. The revised website contains information about our grants competition, an archive of funded projects and their outcomes since 2012, a past meeting archive with agendas and minutes going back to panel inception, and annual reports and other documentation provided to the ANSTF. www.midatlanticpanel.org

Ray Fernald, as MAP Chair, attended the ANSTF meetings in Michigan and Washington, DC. Mike Allen, co-chair, attended the fall meeting and all-panels meeting in Washington, DC.

The MAP agreed to hold its spring 2017 meeting jointly with NEANSP in New York. The panel will offset some of the costs to travelers with federal grant funding.

Small Grants Competition

The Panel has conducted an annual grants competition to fund activities addressing MAP's mission and regional priorities. Since 2007, the Panel has awarded \$385,558 in project funding, and has leveraged over half a million dollars in partner funds. At our spring meeting, the panel reviewed small grant proposals and decided to fund three new projects listed in the table below.

As noted above, two projects finished during FY2016. Their final reports are attached. Copies of the Mid-Atlantic Field Guide will be submitted to USFWS per the grant agreement instructions. We note that Dr. Levri (New Zealand mud snail project, PSU) forfeited \$4,812.09 of his grant encumbrance back to the panel. We intend to use these funds for additional small grant projects as part of the 2017 competition.

Maryland Sea Grant administers the subawards for all projects, including the ongoing projects in the chart below. As of December 2016, \$35K in MAP funds are encumbered for small grant projects.

Current Small Grants Portfolio

Training and Evaluation of Dogs	Virginia	This project will be a pilot program	Funded
for Early Detection of Nutria	Department of	for training dogs to detect nutria on	through Dec.
(Myocastor coypus)	Game and	the edges of their range in Virginia.	2016
	Inland Fisheries		
	(PI: Todd		
	Engelmeyer)		

Economics Analysis of AIS Risk and Risk Reduction in the Bloodworm Trade	Main Street Economics (PI: Robert Wieland)	This project will provide an economic analysis of the cost to various constituencies involved in the bloodworm vector.	Funded through Sept. 2017
Pymatuning Invasive Species Boat Inspection Stations	Crawford County Conservation District (PIs: Brian Pilarcik and Stacie Hall)	This project will provide support to import the invasive species boat inspection model to Pennsylvania.	Funded through Sept. 2017
The use of environmental DNA (eDNA) to detect the emergent infectious pathogens in amphibian populations	Pennsylvania State University (PI: James Julian)	This project will develop and teach eDNA collection techniques to citizen scientists to screen for invasive, emergent infectious amphibian pathogens.	Funded through June 2018

APPENDICES

- I. Final Progress Report: The Good, the Bad and the Ugly: An invasive species toolkit for Educators
- II. Final Progress Report: Characterizing the Invasive New Zealand Mud Snail Population in Central Pennsylvania
- III. Final Progress Report: Mid-Atlantic Field Guide to Aquatic Invasive Species
- IV. Annual Progress Report: Training and Evaluation of Dogs for Early Detection of Nutria (Myocastor coypus)
- V. Annual Progress Report: Economic Analysis of AIS Risk and Risk Reduction in the Bloodworm Trade