

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 2017

The mission of the Mid-Atlantic Panel (MAPAIS) 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 MAPAIS business, including coordination and logistics for MAPAIS meetings, travel for MAPAIS participants at ANSTF meetings and regional panel meetings, the MAPAIS website, the MAPAIS small grants competition, and payment for fiscal management services provided by Maryland Sea Grant.

Panel Coordination

The spring 2017 MAPAIS meeting was scheduled to be held as a joint meeting with the Northeast Aquatic Nuisance Species Panel (NEANSP) in July 2017, but was cancelled because of the ongoing FAC review of ANSTF and its subcommittees. Because the Panel was unable to meet, the Executive Committee, with input from reviewers of subgrant submissions, conducted a conference call to determine recipients of the MAPAIS Small Grant Projects awards for 2017, as presented below.

Similarly, the fall 2017 MAPAIS meeting scheduled for November was cancelled due to the continuing FAC review. In lieu of the MAPAIS meeting, many MAPAIS members attended a 1-day Aquatic Invasive Species Workshop in Annapolis, MD on Nov 30, at which MAPAIS projects, concerns, and other AIS issues of significance to Mid-Atlantic states were discussed.

Both of the ANSTF meetings scheduled for CY 2017 were cancelled because of the continuing FAC review, so no ANSTF meetings were attended by MAPAIS in 2017. As a result, no funds were spent on meetings or travel in 2017.

Small Grants Competition

The Panel has conducted an annual grants competition to fund activities addressing MAPAIS's mission and regional priorities. Since 2007, the Panel has awarded \$431,563 in project funding, and has leveraged over half a million dollars in partner funds. During a conference call in July, the Executive Committee met with reviewers of the small grant proposals and decided to fund five new projects listed in the table below.

Three projects (*Training and Evaluation of Dogs for Early Detection of Nutria, Economic Analysis of AIS Risk and Risk Reduction in the Bloodworm Trade,* and *Pymatuning Invasive Species Boat Inspection Stations*) were completed during FY2017; final reports for these projects are attached.

Maryland Sea Grant administers the subawards for all projects, including the ongoing projects in the chart below. As of December 2017, \$49,979 in MAPAIS funds are encumbered for small grant projects. Because projects funded with FY17 dollars started Oct. 1, 2017, a no cost extension will be required to provide the time necessary to complete these projects.

Current Small Grants Portfolio

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 with FY16 dollars
An analysis of the recreational vector and associated pathways to aid in the prevention of invasive species introductions in Mid-Atlantic waterways	Morgan State University PEARL Laboratory (PI: Scott Knoche)	This project will analyze data traditionally collected for recreational boating/fishing management, as an AIS pathway risk analysis of boating and fishing activities.	Funded through July 2018
Monitoring to manage: determining best population control approaches for the northern snakehead, <i>Channa argas</i> , in Jug Bay tidal freshwater marshes, Patuxent River	Jug Bay Wetlands Sanctuary (PI: Melinda Fegler)	This project will evaluate the relative effectiveness of public engagement and education, and of various control practices in monitoring and managing northern snakeheads in Jug Bay tidal marshes	Funded through July 2018

Using environmental DNA to detect early stages of the invasion of a destructive freshwater snail	Pennsylvania State University (PI: Edward Levri)	Building on previous work funded by MAPAIS, this project will further characterize the eastern invasion by NZMS, and facilitate early detection and rapid response along the invasion front.	Funded through July 2018
First international snakehead symposium	Virginia Chapter American Fisheries Society (PI: John Odenkirk)	This symposium will bring together snakehead researchers and AIS specialists from around the globe, to share information regarding this species.	Funded through July 2018
Mid-Atlantic lake forum: a regional approach to AIS control and management	Maryland Department of Natural Resources (PI: Mark Lewandowski)	This project will bring together professionals from Mid-Atlantic states to develop a multijurisdictional approach and regional plan to control AIS in public and private lakes of the Mid-Atlantic region.	Funded through July 2018

APPENDICES

- I. Final Report: *Training and Evaluation of Dogs for Early Detection of Nutria* (Myocastor coypus)
- II. Final Report: Economic Analysis of AIS Risk and Risk Reduction in the Bloodworm Trade
- III. Final Report: Pymatuning Invasive Species Boat Inspection Stations
- IV. Progress Report: *The use of environmental DNA (eDNA) to detect the emergent infectious pathogens in amphibian populations*