

Mid-Atlantic Panel on Aquatic Invasive Species



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 2018

The mission of the Mid-Atlantic Panel 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 in the mid-Atlantic region, and to coordinate and communicate these activities with the other Regional Panels, the ANSTF, and other partners.

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 summer 2018 MAPAIS meeting was held on 17 July 2018 in conjunction with the First International Snakehead Symposium, which was sponsored and funded in part by MAPAIS and by the Mississippi River Basin Panel (MRBP). The Panel meeting was held in two sessions: (1) a joint session with MRBP which focused on ANSTF and AFWA Invasive Species updates, followed by presentations and discussion of the Panels' respective structures, projects, priorities, operations, and potential for joint projects; and (2) our MAPAIS meeting, which focused on routine business items, adoption of our revised SOPs, updating of our membership roster and listserv, review of proposals and award decisions regarding our 2018 RFP, and establishment of a nominating committee for our fall 2018 Panel officer elections.

The fall 2018 MAPAIS meeting was held 14-15 November 2018 at the Susquehanna River Basin Commission headquarters in Harrisburg, Pennsylvania. The panel hosted a number of speakers talking about invasive species issues within Pennsylvania and across the region. Additionally, several speakers discussed the outcomes of their small grants projects (Melinda Fegler (Jug Bay Wetlands Sanctuary), James Julian (Penn State University), Scott Knoche (Morgan State University), Ed Levri (Penn State University).) The meeting also included elections for chair and vice-chair for the next two-year period. Jay Kilian of the Maryland Department of Natural Resources and Edna Stetzar of the Delaware Department

of Natural Resources and Environmental Conservation were elected to the chair and vice-chair positions, respectively. Maryland Sea Grant has continued to serve as fiscal agent during this time.

The ANSTF meeting scheduled for Fall 2017 was canceled due to the ongoing FAC review of ANSTF. The MAPAIS chair (Ray Fernald) attended the spring 2018 ANSTF meeting in Silver Spring, Maryland, which focused on ANSTF strategic planning. Incoming chair, Jay Kilian, attended the fall ANSTF meeting in Alexandria, Virginia.

Small Grants Competition

The Panel has conducted an annual grants competition to fund activities addressing MAPAIS’s mission and regional priorities. Between 2007 and 2018, the Panel awarded \$431,563 in project funding, and has leveraged over half a million dollars in partner funds. At the summer meeting, grantees were selected for 2018. However, those awards are funded by the new MAPAIS grant (F18...) and so discussed there. Several continuing and completed projects are outlined below. Annual and final reports for projects are attached.

Five were completed during CY2018; reports for these projects are attached. One project is ongoing through June 2019.

Maryland Sea Grant administers the subawards for all projects, including the projects in the chart below. As of December 2018, \$7,502 in MAPAIS funds are encumbered for small grant projects, including the Maryland Department of Natural Resources project (Mid-Atlantic Lake Forum) whose funds will not be spent until the Forum in 2019. As of this report, the Morgan State project period has also not ended. Because projects funded with FY17 dollars started Oct. 1, 2017, a no cost extension was requested and granted by the USFWS 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.	Completed July 2018
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 December 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	Completed September 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.	Completed 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.	Completed 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 June 2019

APPENDICES

- I. Final Report: *The use of environmental DNA (eDNA) to detect the emergent infectious pathogens in amphibian populations*
- II. Final Report: *Monitoring to manage: determining best population control approaches for the northern snakehead, Channa argas, in Jug Bay tidal freshwater marshes, Patuxent River*
- III. Final Report: *Using environmental DNA to detect early stages of the invasion of a destructive freshwater snail*
- IV. Final Report: *First international snakehead symposium*
- V. Progress Report: *An analysis of the recreational vector and associated pathways to aid in the prevention of invasive species introductions in Mid-Atlantic waterways*