

# Mid-Atlantic Panel on Aquatic Invasive Species



## **Mid-Atlantic Panel (MAPAIS) Spring 2019 Meeting** **10 April 2019**

Chesapeake Bay Program Fish Shack  
410 Severn Avenue  
Annapolis, Maryland 21403

**Conference Line:** (929)205-6099 **Code:** 593 692 766

**Remote Participation:** <https://zoom.us/j/593692766>

(Please log into the webinar first and then call in so your name is recorded.)

8:00 am	Coffee	
8:30 am	Call to Order <ul style="list-style-type: none"> <li>• Welcome/housekeeping</li> <li>• Introductions</li> </ul>	<i>Jay Kilian, Panel Chair</i>
8:40 am	Review & approve agenda and Fall 2018 minutes Fall 2018 meeting action items and review	<i>Jay Kilian</i>
8:50 am	Budget and funded projects update <ul style="list-style-type: none"> <li>• 2019 budget update</li> <li>• Update on 2018 funded grants</li> <li>• Update on ongoing/completed projects</li> </ul>	<i>Mike Allen, MD Sea Grant</i>
9:00 am	ANSTF update and strategic planning (2019-2024)	<i>Susan Pasko, USFWS</i>
9:30 am	Panel recommendations to ANSTF? Setting regional research priorities (ANSTF Plan) Panel session at upcoming NAISMA conference	<i>Jay Kilian</i>
9:50 am	Mid-Atlantic States Lakes Forum wrap-up: Who attended, topics discussed, and next steps?	<i>Mark Lewandowski, MD DNR</i>
10:10 am	Break	

10:30 am	New York's Invasive Species Program	<i>Steven Pearson, NY DEC</i>
11:00 am	Environmental DNA surveillance of invasive fishes in the lower Susquehanna River Basin	<i>Matthew Shank, Susquehanna River Basin Commission</i>
11:30 am	Mid-Atlantic region NAS sighting alerts and program updates	<i>Ian Pfingsten, USGS NAS</i>
12:00 pm	Lunch ( <i>provided</i> )	
1:00 pm	Review/decisions regarding 2019 RFP proposals	<i>Margot Cumming, Chesapeake Bay Program</i>
3:00 pm	New business and decision items: <ul style="list-style-type: none"> <li>• 2020 Panel budget</li> <li>• New member request</li> <li>• Discussion of quarterly (interim) conference calls</li> <li>• Next meeting (Fall 2019 MAPAIS)</li> </ul>	<i>Jay Kilian / Edna Stetzar, Panel Vice Chair/ Mike Allen</i>
3:45 pm	Member / interested parties updates	<i>Panel Members and Interested Parties</i>
4:30 pm	Adjourn	

Jay Kilian (MD DNR)	Edna Stetzar (DENREC)	Ray Fernald (VA DGIF)	Susan Pasko (FWS, ANSTF)
Steve Minkkinen (USFWS)	Kate Fleming (DE Sea Grant)	Bill Jacobs (LIISMA)	Steve Pearson (NY DEC)
Luke Gervasse (LIISMA)	Sarah Stahlman (PA Sea Grant)	Rom Emens (NC DEQ)	Ian Pfingsten (USGS)
Mark Lewandowski (MD DNR)	Jonathan McKNight (MDNR)	Sandy Kepner (Remote, USFWS)	Gary Walters (Remote, PA DEP)
Katie Zipfel (WV DNR)	Carolyn Junemann (Remote, MA-DOT)	Chris Urban (Remote)	Jil Swearingen (remote, In the Weeds)
Matt Shank (Susq. River Basin Commiss.)	Tara Whitsel (Remote, USACE)	Mike Allen (MDSG)	Margot Cumming (CRC)
Paige Hobaugh (CRC)			

#### Action Items:

- Mike will finalize budget proposal by April 29
- Margot will send out project summaries from 2018 Funded grants
- Jay/Edna review ANSTF experts database (follow up with Susan for access)
- Send comments on ANSTF draft strategic plan by first week of May
- Use Jonathan's text for recommendations to ANSTF at May meeting
- Margot coordinate with Sandy to upload state reports to website as they become available
- Start asking states for overview of Annual Reports at each meeting
- Steve Pearson will forward spotted lanternfly ICS to Susan
- Follow up with Sara Stahlman if interested to put field guide into regional app
- Jay will finalize 2019 funding awards notifications; Mike will connect with grantees
- Steven will connect Jay with potential new NJ contacts
- Margot will send out poll for fall meeting dates, coordinate with New England panel for planning
- Margot follow up with Sara Stahlman for PA Sea Grant Updates
- Jay looking for risk assessment tools that work well for animals in the region
- Margot will send WV ANS management plan to Katie Zipfel

#### Call to Order

## **Review & approve agenda and Fall 2018 minutes**

- Outstanding Action Items:
  - ANSTF Strategic plan still forthcoming
  - Jay will follow up with Ray for leadership
- Website headshots - send to Margot
- Lake Forum occurred 4/9/11
- **Motion to approve, seconded. Minutes passed as final.**

## **Budget and funded projects update**

- First year of new 5 year grant
- On target for panel budget for the year, so far
- Budget proposal will need to be put together in the next few months (Susan will forward the announcement to Mike)
  - \$40,000, \$32,000 for grants support
  - **Due on April 29 - Mike will start working on that ASAP**
- 2018 Grants:
  - 10% spent so far
  - Amy Fowler: \*get update text from Mike\*
  - Merovich: submitted an abstract to AFS 2019, PA wildlife society and PA AFS chapters
    - **Margot will send out project summaries**

## **9:00 am ANSTF update and strategic planning (2019-2024) - Susan P**

- ANSTF was established in 1990 and renewed in 1996
- FILL
- Oversee 6 regional panels, standing committees and ad hoc committees
  - Regional Panels: supported financially by ANSTF
  - Standing committees: education and outreach, research, prevention
  - Ad hoc: Quagga zebra action plan coordination, economics of ANS, boating partnerships (tech information report)
- ANSTF manages ANS State Management plans
  - 44 approved plans - 41 state, 3 interstate
  - \$2 Million to assist with implementation of state management plan (~\$45k / yr / state)
  - Colorado is finalizing their new plan, DE has interest to submit a plan, NH is working toward a plan
  - How often are these updated?
    - Recommend to do every 5 years, but ANSTF is flexible (funding is generally not revoked)
- ANSTF Meetings: twice a year
  - Winter 2018 - Falls Church, VA
    - Topic highlights: Injurious wildlife listing, accelerated shipping w/ arctic invasions, cultural release study, AIS Management Decision making,
    - Action Items:

- Comments on ANSTF Report to Congress
- Goal Teams to report out by Feb 15
  - Develop description of how ANSTF will implement each of the Objectives and identify key outputs
  - Suggest who should do that work
  - Make recommendations for refinements to strategies
- Strategic Plan 2019-2024:
  - Current Plan has 6 goals:
    - 1) Coordination a national ANS program for US waters
    - 2) Prevention: develop strategies to identify, assess, and manage the risk of ANS and their pathways to prevent new introductions
      - How will priority species be identified with differences between regions?
        - This will probably go to a committee to be discussed, but most likely there will be a national and regional lists
    - 3) National coordinated early detection and rapid response approach
      - Development of eDNA standards will be very useful
      - Expert database on the ANSTF website - goals to develop a report analyzing how it is used
        - **Regional chairs have access to edit - follow up w/ Jay**
    - 4) Control established populations and restore impacted habitats:
      - Coordinate development and implementation of species specific control and management plans
      - Need for clearinghouse on all AIS resources
    - 5) Research on ANS threats, impacts and controls
      - Communicating research needs and priorities
      - Help to find funding for research needs
      - **It is important for the regional panels to think about this and to send it to ANSTF as a way to communicate needs to the federal level. This will then be communicated to federal agencies who will have the capacity to fund these priorities.**
      - Exploring options related to a research grant program on the national level
    - 6) Outreach and Education to increase awareness
      - Goals to evaluate effectiveness of education/outreach campaigns via behavior change assessment
      - Use results to develop a communications strategic plan
  - Each goal has 3 objectives that provide detail about how each will be accomplished; each objective has a list of strategies that specify activities that will be completed
  - Regional panels are encouraged to make recommendations to the national panel
  - **Draft report will be sent out to all the panels next week - send comments by the first week of May**
- Next Meeting; May 7-9 in Lake Tahoe, CA

- Overview: regional panel principal meeting, preventing the spread of a=invasive mussels in the West, ballast water and biofouling management, breakout discussions of strategic plan outputs

### 9:30am **Setting regional research priorities (ANSTF Plan) - Jay Kilian**

- Recommended in December:
  - Great lakes/Mississippi combined: asked to provide oversight/standardization of grass carp in US, need for BMP to reduce risk for those using grass carp?
  - Western regional: funding related. Requested funding maintain or increase allocation to panels to coordinate activities, maintain to support quagga zebra action plan
- Co-chair had minimal reaction to Western recommendation - has been a request in the past
- MAPAIS last recommendations were sent in May 2016 - restore funding to previous levels.
- Opportunity for upcoming May meeting if we want to put forth a recommendation
  - Quick turn around: will require a conference call, or email for consensus for majority approval.
  - Jay: Panel reaction to funding recommendation shouldn't discourage us from making another one.
  - First recommendation: Jonathan: in past, we've submitted request for task force support for Chesapeake Bay Nutria project. Will be declaring victory over nutria in DelMarVa over next 6 months. Unless action is taken, we will fold that project into APHIS work. Move that the panel support the idea of transferring team/technology south to the next frontier (VA, NC). Management Team supports this idea. Drafted a recommendation for the panel to review.
    - **\*include text from Jonathan's recommendation**
    - Ray - I will add VA support for this. There is an interagency team in the area, and we have a panel funded VA nutria management plan. We have the infrastructure to make this happen. We decided we couldn't do much about SE VA population at the time bc it was so established - didn't have the resources at the moment. This sounds like a new opportunity, and a good chance this could be successful. The Ches. Bay Plan itself mentions moving efforts to VA once finished.'
    - Rob Emens: I'm sure NC would be interested in having a conversation about this. NC seconds the motion to make this a vote.
    - Panel majority in favor.
  - 2nd recommendation: Ray - All state annual reports should be provided TO the panels - the panels are getting more money than the states do and yet they rarely see the reports. I'm not sure if there has been a change on this any time since the last ASNTF meeting I went to.
    - Susan: This is something in discussion with the coordination committee. They would like to develop commission that will require consistent report on what states have been doing with funds and what priorities are,

compile, and share with all panels. It will be difficult to develop mechanism that'll capture the "whole picture".

- Ray: Is this recommendation worthy?
- Susan: would be great to have as recommendation in order to raise to higher priority level if necessary. Include info you'd like to have, and in what format.
- Ray: Would this be worthwhile for panel to have this information?
- Panel: YES!
- Rob Emens: Can panel members just ask states for reports individually?
- Susan: This is more of a process issue. Grant programs release broad note of funding, proposals get prelim review, then trickles down to regional offices for management. Task force responsibility to make sure information is received back and forth from regional to top.
- Rob: So is it possible to coordinate with FWS region 5 coordinator? Would this be the path of least resistance?
- Sandy: Each region has a different perspective on how reporting is done. Bigger challenge will be different timing of each states grants programs, and when they're awarded funds. There are also different reporting requirements based on when the awards are made.
  - We've created a template in the past, but we've gotten away from that bc it didn't have enough of the info the panel is looking for, it was more of a way for the service to track accountability.
  - Asking each regional coordinator would be DOABLE, but will be challenging. For example, the Ohio river basin has had challenges with the asian carp program bc the reporting deadline doesn't match with annual reporting. This will cause them to have two reports - I don't want to put that on to all the states.
  - **As they come into me, Margot can upload them to panel website.**
- Ray: ANSTF may not even have the reports - may be easier to go through FWS regional offices or states.
- Rob Emens: But reports may not have the information we need.
- Sandy: Willing to share the reports I already have. I will need something in writing from each of the states to release those reports.
- Jay: How hard would it be for all of us to get those AIS plans? Some states are being managed by other non-panel people. We could send out reminders to get that information
  - Sandy: From my perspective, you will get a more up to date picture of the work being done on these management plans. I could only provide an annual report
  - Steven: NY could do that. NY hasn't requested funds every year so historic reports may be more difficult to find. But this year and moving forward, we have dedicated source for it and should be easy to provide reports.
- Jay: So before each meeting, tell each state to be prepared to report out?

- Ray: I think this could be a good fix. I was assuming that ANSTF was receiving the annual reports, but appears that this is not the case. I would say go straight to the states too.
- Susan: This is something we are hoping to correct, but asking for these reports can help inform how we develop this process - esp what kind of information the panels should receive.
- Matt: Only comment would be that states not active on panel will need liaison to communicate between panel and state representatives
  - Jay: We could use FWS to help facilitate that
  - Sandy: If the states are willing to share what they are doing, they could just send me an update
  - Edna: NJ and WV dont have plans, but they aren't active either
  - Rob: concept is right. We need to know what states are doing with the \$ theyre getting for state plans. Keep on our website for transparency.
  - Edna: who will Jay contact before each meeting?
  - Jay: I will look at the membership list and ask the state representatives can coordinate who should report out.
  - Matt: will be helpful information for grant proposal reviews, as well. This could give us some information about different state priorities.
- 3rd recommendation: Steve - After hearing about the ANSTF strategic plan priorities related to EDRR topics, we may want to (1) recommend moving forward with eDNA standardization and protocols. NY looking to do this and it seems like many other people are interested in doing this.
  - (2) ICS structure on more aquatic front. Could be joint recommendation for EDRR efforts.
    - Susan: ANSTF is aware that we'll be getting multiple standards from different states, but would like them to come together to create national standards conservation. Same with ICS, committees are open to participate in these meetings. If there is something that the task force is working on that you are interested in, please speak up.
    - Steve: NY would love to point to a set of national or international standards and refer any practitioners to those.
    - Jay: Should this be a formal recommendation or should I bring it up at the ANSTF meeting during the various discussions?
    - Susan: I am concerned that this may be premature since we don't have strategic plan finalized. We could wait until november until groups get more organized/prioritized. Verbalizing the need may help generate the conversation so things happen faster. It is a high priority so I think this will move forward regardless.
    - Jay: To clarify, NY would like to prioritize standardized protocols for eDNA and ICS, effectively to get them done first?
    - Steve: Essentially yes. But because the strategic plan hasn't been pass and the committees haven't been organized yet, it could be more of a



recommendation that this is a priority for this region. To reinforce that we are interested in the outcome of this initiative.

- Susan: Another avenue could be to flag comments regarding these topics as a priority / high priority in ANSTF strategy during upcoming review.
- Steve: interstate ICS happening for spotted lanternfly currently. Working well, good communication.
  - **Forward plan / documentation to Susan**
- Steve: So to recap, we won't make this a recommendation, just provide comments when ANSTF report comes out in order to elevate the issue.
- Jay: we could always put this forward for recommendation at fall meeting.
  - General positive consensus here.
- NC: how do we make comments?
  - Susan: will send out documents and requests for comments through regional listservs so this will come from MAPAIS listserv.
  - Prefers tracked changes, send comments back to Susan via email.

#### **9:50am Mid-Atlantic States Lakes Forum wrap-up, Mark Lewandowski**

- Good attendance - 51 in person attendees, 5 remote participants
  - States, local gov, non-profits, private sector, federal agencies
- Interest to do a similar event on a regular basis in the future (2 years)
  - MD DNR interested to organize again in the future (Mike Naylor)
  - Will consider applying for MAP funding in 2020 or 2021
- Speakers: challenge to find diverse perspectives and projects that the group haven't heard from yet
  - follow up if you know of anyone who could be valuable in the future
- Discussion:
  - General positive sentiment from attendees!
  - Adirondacks Park effort is massive -
    - Data is going to be easily available - also includes similar programs in other lakes in NY
    - Large budget - important for other states to take note that state buy in is crucial
    - Information on effectiveness would be very helpful to get programs going in other locations (i.e. how many invasions still happen, how many are prevented etc.)
    - Steve (NY DEC) - super important effort and expanding, lots of legislative backing and community involvement. Data standardization throughout the state, so data will be accessible on a broad scale.
    - Luke: We're also interested in the spread, so I think this is an important component of the data collection. We want to know how things are moving in the region.

#### **10:30am New York's Invasive Species Program - Steven Pearson**

- NY state invasive species work ongoing since 1994
  - Management plan first approved by ANSTF in 1994.
- 2003: legislative effort to prioritize invasives
- 2005: task force created
- 2007: office of invasive species coordination created
- 2008: Invasive Species Council created
  - Coordinates multiple state entities and partners to address environmental and economic threats of invasive species
  - Regulates invasion pathways
  - Good focus on aquatic species
  - Structure:
    - Co-led by NY DEC and DAM (Dept of Agriculture and Markets) -- recreational and regulatory components
    - 9 member orgs
    - 25 members on advisory committee - steers council toward forming different state initiatives
  - Objectives:
    - Consult with advisory committee
    - Provide input on funding priorities:
      - Environmental Protection Fund (EPF) financed through real estate transfer taxes, used to fund invasive species efforts
    - Provide input on grant applications and programs
    - Encourage industries and trade organizations to develop and adopt voluntary codes of conduct
  - Regulations
    - 2 main regulations relied upon to deal with sale and distribution of invasive species
      - Reasonable precautions to be taken before launching craft into public waterways; firewood regulation; quarantine development, etc.
  - Strategic elements
    - Coordination, prevention, education, early detection, rapid response, research, control/management
  - Coordination - contract partners funded by EFP
    - Invasive Species Program:
      - Grant funding for lake management, rapid response, research etc.
      - Includes Adirondack AIS Spread Prevention Program
    - Partnerships for regional invasive species management (PRISM)
      - Diverse NGO and governmental stakeholders
      - Landscape level and local focus
      - Strategic
      - Engages volunteers
      - IS monitoring and management

- Education and citizen science (workshops)
- NY invasive species research institute
  - Informed by council and advisory committee to determine research priorities
    - Hosted by Cornell University
    - Designed to connect management and research
  - iMapInvasives
    - Multi-state IS reporting system (NY, PA, VA participates)
    - Distribution maps
    - Alert system
    - Integrated with management prioritization
  - Central website.information clearinghouse
- DEC Bureau of Invasive Species and Ecosystem Health
  - To protect health of NY lands and waters from native and exotic plants, pests and diseases, that pose a risk to the natural ecosystem and all people, plants, etc. that rely on it
- Comprehensive Management Plan:
  - Continue to build partnerships/capacity
  - Develop centralized framework for information management
  - Set priorities for IS management
  - Engage and inform the public
  - Advance prevention / early detection
  - Improve the response to new invasions
  - Recover ecosystem resilience and services
  - Evaluate and report progress
- DEC Invasive Species Coordination Section
  - Aquatic Invasive Species
    - AIS management plan
    - Watercraft inspection steward
    - Control and management of high priority species and locations
    - ICS = incident command system (used mostly with terrestrial systems, hope to develop more use within aquatic systems)
  - Response Management
  - Education and outreach
    - Large effort to make sure clearing house is as up to date as possible when funding runs out at the end of the year
- Future Plans:
  - Revamp education and outreach messaging to bridge gap between intention and action (and increasing consistency - produced by DEC and distributed to PRISMs)
  - Expand boat stewardship program to additional locations (incorporate into PRISM contracts)
  - Conduct risk assessments and revisions of regulated and prohibited species list

- Access to private property for AIS control
- Explore eDNA lab development
- Questions:
  - NAISMA Conference Sept 20 - October 3
    - There will most likely be an eDNA conversation at that conference as well. We could table the standards conversation until that time too.
  - Are there other transfer taxes that are build into real estate transfer taxes?
    - I think that is currently all there is - perhaps there are other funding sources that also go into the environmental fund, but not sure.
  - Do the PRISMs have had success with coordinating efforts with private lake associations?
    - PRISMs have had better luck contacting private landowners - they have the benefit of coming at it from a non-enforcement angle. Landowners are sometimes more willing to work with them.
    - Also depends on the region of NY
  - What is the penalty for violation of the trade / movement of prohibited or regulated species?
    - Depends which list the species is on - not always a fine. Sometime they just pay for the removal - not necessarily a deterral.
  - What is the best place to access all the outreach materials?
    - Steve: Unfortunately, think a lot of it may be buried in the info pages on each species. There are some materials posted on the education pages for teachers. You can also reach out to the outreach coordinator who can send things directly.

**11:00am Environmental DNA surveillance of invasive fishes in the lower Susquehanna River Basin Mid-Atlantic region NAS sighting alerts and program updates - Matthew Shank**

- Partnered project with USFWS northeast fisheries center, and PA Fish and Boat
- Interested in tracking snakehead and blue catfish.
  - Snakehead are still below furthest downstream dam
    - In MD and NC since 2004, moving upstream since
    - Unclear of Susquehanna distribution (sparse angler reports)
  - Blue catfish is above a number of the mainstem dams
    - Introduce to chesapeake in mid 70s
    - Having negative food web impacts
- Applications of eDNA:
  - Useful for detecting rare species via water sample analysis
  - Snakehead and blue catfish markers have been developed
- Project Goals: use eDNA to get distribution data below Conowingo and Holtwood Dams
  - Field samples will be taken after eDNA analysis
    - Focused sampling below Conowingo and below Holtwood (aiming to assess if any have been inadvertently passed in fish lifts)

- Additional dams and fall lines in tributaries will keep sampling reach discrete
- 2 sampling rounds at 60 sites
- Coordinating with MD DNR and USFWS and the multi-state snakehead workgroup
- Deliverables:
  - Comprehensive georeferenced dataset of eDNA monitoring and traditional fisheries sampling for Lower Susquehanna (i.e. presence / absence of snakehead / blue catfish)
  - Technical report and powerpoint on findings
- Value:
  - Expand the spatial scope and increase the resolution of MDDNR invasive species early detection monitoring network
  - Provide distribution and abundance data to stakeholders and resource managers
  - Inform fish passage operations on lower river hydroelectric dams
- Discussions:
  - Still open to suggestions - this project is still in development.
  - Will you be sampling in known sites for a positive control?
    - We have some locations that we are highly confident, but not 100% confirmed. We are pretty confident in the lab's ability to detect and have high confidence of the marker development.
    - Having a tissue sample or a positive control could be a good idea.

**11:30am Mid-Atlantic region NAS sighting alerts and program updates - Ian Pfingsten**

- MAPAIS regional map viewer still active - link posted on our website.
  - Not many updates have happened, but if there is something new please let Ian know
  - Link posted on MAPAIS website homepage
- NAS Alert system:
  - Alerts generated when a new report is reported for multiples spatial or temporal levels
- Since spring 2018: 31 alerts, mostly plants
  - 3 new to states:
    - 18 new drainages
    - 9 new counties
    - 1 temporal
- Alert Risk Mapper - new!
  - Adds a map showing water bodies at short term risk from invasion from initial observation location
  - Based on life history traits - species specific distribution potential via active or passive
- Also developing NAS flood and storm tracker maps - tracking spread of NAS related to storms
  - Give managers in particular regions some explanation of occurrences

- Staged map development
  - 1 (within a few days-weeks): rapid initial response
  - 2 (within a few months): follow up to see if they have been invaded
  - 3 (final review 1 yr out): are any new records
- Future Maps: looking at past storm events
- **Looking for feedback on all of this work. Stay tuned for an impacts database showing impacts w/ sources by species**
- Discussion:
  - Steven Pearson: for the fast maps, have you considered looking at riparian / dune species that are spread in these storm events - is anyone building these movements in? Ex: Asiatic sand sedge in Long Island
    - IP: The tool allows it to be applicable to other organisms if the distributions are known. No one has asked for anything like that yet but, we could make a map like that because we are using publicly available data. If someone asks, it is possible!
  - Does the NAS database accept eDNA data? If not, have there been discussions on how to do that?
    - There have been discussions, and it is important. We're not sure how that is going to look, so we will need to continue that conversation.

#### **12:50pm Mid-Atlantic Field Guide Update - Sara Stahlman, PASG**

- In 2013, PA Sea Grant received funding to develop PA field guide; expanded for a Mid-Atlantic version
  - Very good feedback
  - Other states are interested - esp. Ohio
- Goes out of date quickly with paper version - wanted to create a smart phone app
  - Skyward apps. Created a PA AIS field guide
  - Digitized version of field guide
    - Organized by species w/ characteristics (look alike sp, habitat etc.)
    - Ability to report new infestation via GPS
    - Access articles/news posted by parent organization
    - Real time updated
  - Ohio also wants an app
- Good opportunity to create a master app/template for other states to use/follow
  - \$20k/field guide
  - Available only for iphone currently
- Beta version only currently available, not available for everyone to demo currently
- Discussions:
  - **Would it be useful to have panels' different versions available as an app?**
    - Ray: really likes the idea -not sure about the costs and timing, but generally in favor.
  - Jill: Will the app share data to existing databases?
    - SS: It is tied to the PA rapid response processes - I'm not sure what that would look like in other states.

- What does creating an Android app look like?
  - SS: because PA state biologists are given iPhones, we haven't really been thinking too much about Android. But it would probably cost at least an additional 20k.
- There are some ID apps that allow users to take a photo and get an ID - does this app have any capability?
  - SS: No this is just a field guide to give information on the species. You can take pictures and submit reports, but it will go to the experts for ID.
- Let Sara know if there are any questions
- No timeline for completing this

### **1:00pm      Review/decisions regarding 2019 RFP proposals - Margot Cumming**

- FY2019 Overview
  - 9 proposals
  - Total requested funds 91,695
  - Avg requested 10,188
  - Total available: 32,000 (4800 in carryover from last year)
- Hughes: Rusty crayfish removal from valley creek upstream of Valley Forge National Historical Park
  - Comments: Per dollar benefit seems high. Outreach focused.
  - Concerns: not innovative approach, outreach limited to direct volunteers, small scale with limited regional impacts, unclear how success will be measured
- Neal: Zebra mussel eradication at Hyde's Quarry
  - Comments: project will bring regional attention to AIS, report would be useful to other managers
  - Concerns: money for writing the report, will the methods work - not a lot of time to see results
- Gedan: Early detection of invasive *Phragmites australis* at the tidal marsh - forest ecotone with airborne LiDAR
  - Comments:
  - Concerns: budget is high, doesn't include student and volunteer field work.
- Fleming: Promoting Tidal and Marine Invasive Species Awareness and Response in DE Among Diverse Stakeholders
  - Comments: Fits well with MAP priorities, anglers are a good choice for audience
  - Concerns:
- Cusick: Functional Metagenomics for the Development of Aquatic Invasive Species Vector Screening Strategies Associated with Ship Biofouling
  - Comments: Creative approach, budget and schedule appear to be reasonable
  - Concerns: Objective and questions seem too broad for modest funding request, sampling scheme unclear
- Stevens: Settlement Dynamics of Invasive and Native Biofouling Organisms in the Maryland Coastal Bays
  - Comments:
  - Concerns: No description of sites, outreach/management implications limited, no

- significance for regional AIS management outside of MD coastal bays
- Carney: Assessing the Potential Impact of Dominion Cove Point LNG Export Facility on Ballast Mediated Invasions in the Chesapeake Bay
  - Comments:
  - Concerns: Unclear how to differentiate between ballast water and hull fouling as a source
- Brown: Effects of Sedimentation Runoff on non-Native Crayfish Invasion
  - Comments: Excellent proposal, study is well designed, meets several MAP priorities
  - Concerns: Ambitious and intensive field and lab research, minor outreach component, high overhead costs
- Stahlman: Providing a Convenient Alternative to Pet Release Through the Development of a Habitatitude Surrender Program in Pennsylvania
  - Comments: Demonstrated past success in use of funding, strong education and outreach
  - Concerns: Surrender events may not be well attended by the general public
- MAPAIS 2019 Priorities
  - Develop outreach and educational materials for classrooms and specific populations to prevent introduction and spread of AIS
  - Conduct research on AIS issues in the region such as prevention, early detection, rapid response, emerging invasions, and how climate change may influence IAS
  - Conduct innovative approaches to AIS control/eradication, OR control/eradicate a high priority AIS population
  - Develop vector management strategies
  - Encourage states to implement AIS management plans
- Scoring Discussion
  - Mike: If we wanted to fund 4 instead of 3, we can, but it will reduce how much we can award in 2020
  - Hughes (rank 8) has 26k in match
    - Mike: Not well put together, no CVs
    - Carolyn: if they don't get it funded, will it undo what's been done in the park?
      - Chris: I don't believe it will, there are ongoing efforts at the park
    - Jay: They can seriously knock down numbers, but they won't eradicate it. Would take work year after year to maintain success.
    - Steve Minkinen: crayfish may be difficult to ID, volunteers would need training.
    - Jil: small amount of \$ and they will be doing training. It would help get more people involved directly in invasive species and making a positive difference. If funding is provided, they should acknowledge MAP in their education and outreach material.
    - Mike: not clear to me that PI has that expertise.
    - Susan: good effort, but thinks that one good fundraiser would raise the



money for this.

- Chris urban: only concern given that there is a rare crayfish in the watershed, is about misidentification of species. Could require them to coordinate or have them trained by crayfish expert like Dr. Dave Lieb at PFBC.
- Jonathan: interest in the project, but there are concerns. Table for now and have them answer our questions and come back next year.
- Gary walters supports the projects and agrees with comments of Jay, Chris and others.
- Stahlman: Habitattitude Project (rank 4)
  - Steven: Wanted to like this proposal, but there wasn't enough detail on feasibility. Not much information about program, what information found wasn't reassuring. No information on where turtles surrendered have been housed or how they get there.
  - Mike: Liked it because it was a connection with long running national program. Thought it was good opportunity to bring it down to level of state. Interesting partnership between PA and OH. Opportunity for outreach.
  - Steven: Ohio group website says they're rehoming snakes, chameleons, reptiles, but it didn't seem as if they'd have the capacity of what was being spelled out in this proposal. Prices from OH group seem high to be rehoming reptiles.
  - Susan: Habitattitude website should be taken down bc it is very outdated - they have been working with pet industry joint advisory (PIJAC) commission to revise website and will roll it out next month.
  - Mike: Website says the surrender program funded as part of Great Lakes Initiative, does anyone know about this?
    - General no consensus.
  - Ian: At Amnesty Days in FL - they get lots of turtles, amphibians.
  - Steven: The proposal says they are beginning with red ear sliders, then expanding to other pets. With further clarification, this might be worth pursuing. Just a lot of missing information in this proposal.
  - Jay: This is one AIS pathway that doesn't receive much attention, any steps taken towards pets not being released is a good thing. Happens often in MD.
  - Overall, would need more information before funding.
- Fleming: (rank 2): No Match
  - Mike: Nothing bad to say about this proposal.
  - Edna: There is definitely a need for AIS outreach in DE.
  - Steven: Estuarine/tidal focus AIS education is lacking across the board. Freshwater fish, but focus audience are people who cross over into estuarine/marine realm.
  - Jay: How do they plan to measure success?
    - Mike: Not answered in proposal. Would make this an

ask/condition if we decide to fund it.

- Matt: Applicable in MD as well as in DE as long as template is set up.
- Margot: Make them change the title to tidal from marine. Also valuation of success.
- Remote: Tara, Jil, Carolyn, Katie, Chris all in favor.
- **Brown:** Project 8 (rank 3):
  - Matt: Strong proposal. Amount requested is only part of total cost of study. Seems like an extensive study, unsure if 2 years will be enough to complete it. Outreach part is a little weak. Science is innovative.
  - Margot: Associated with VA Tech, high overhead.
  - Steven: Didn't make a strong argument for broad application to other regions, but good proposal.
  - Jay: Very ambitious. Both PIs have phd. Lack of description, not lack of thought put into design. Factors that will affect results of study that they do not describe well in proposal - if funded, would be necessary to talk to them to discuss this potential flaw.
  - Edna: Any management implications from this study that might be useful?
    - Jay: Response of native crayfish disappearance is quick. Pure science side is interesting, management implications, I'm not sure. The sedimentation/disturbance side of the proposal may lend itself more to management efforts.
  - Mike: Match provided is just salary.
- **Carney:** Project 7 (rank 1): No Match
  - Ray: Seemed interesting. Primary concern is that the facility is new enough that it should have been permitted already. Potentially some good science to be gained here..
  - Steven: Best proposal I read, have historical dataset with which to compare new data to. Budget seems reasonable.
  - Jay: One of the best I read. Opened my eyes to the new shipping traffic projections. Ballast water AIS vector most widely studied vector out there, this would be taking funding away from other, less studied vectors.
- **Gedan:** Project 3:
  - Ray: promising technique, great looking proposal. Concept seems sound. If it works, it'd be a new way to detect phragmites in the subcanopy. 2 year study
  - Matt: how to ID phrag from different plants using lidar at same height
    - Ray: what they're trying to figure out. Would this signature be unique to the point that you can ID phrag amongst other plants of same height.
  - Matt: ground truthing is part of the proposal. I wasn't getting enough information on how to differentiate diff species at same height. Definitely checks the novel box. Ask was large, though.
  - Jay: novel and easily applied to other states in the region. Would need to take \$ from next years pot to fund this entirely.

- Rob Emens: struggled with detecting and monitoring with no management plan in place. NJ, DE, MD spends a lot of \$ on phrag - if management is happening and this helps detect the plant, it'll be very helpful.
- Cusick: Project 5:
  - Edna: concern with access of security clearance to commercial ships. Have all this work they're going to do including outreach, lab work, manuscript writing has me concerned for following the timeline.
  - Chris urban: no
- Voting:
  - Carney: Project 7:
    - remote: Chris Urban, Sandy Keppner, Gary Walters, Tara Whitzel, Katie Zipfel = yes.
    - Carolyn on fence - how to differentiate between hull fouling and ballast water? Open to asking for clarification.
    - Matt: proposal says nothing about treatment.
    - Jonathan: referring to these as 2 different vectors, but 1 vector really of international offshore shipping of natural gas.
    - Matt: object seems to be source detection. Maybe asking for clarification to Carolyn's point and differentiate between the two.
    - Ray: project is 2 years, but doesn't specify between year 1 and year 2 budget. Asking for \$ up front.
    - Mike: we could make them do two budgets.
    - Jil: seems like to be a lot of focus on increased volume of BW due to new activity that will increase over time. Worth funding and could provide good information.
  - Neal: Project 2:
    - Why isn't this report being written anyway?
    - Mike: I don't see why we should be funding the report.
    - No from most in room, No from everyone remotely.
  - Stevens: Project 6:
    - Matt: not clear to me that this was species of concern, didn't describe why it's important to conduct this study
    - Jay: they didn't sell the need very well.
    - General no consensus
  - **Project 8 (Brown), 9 (Stahlman) , and 3 (Gedan) comparison discussion:**
    - Mike: If we fund year 1 of project 3, we will begin next year w/ 10k less. Will be more competitive for the proposals next year.
    - Jay: like the idea of funding something locally that can be applied regionally or on a larger scale. Habitattitude and LiDAR can do that, crayfish one wouldn't.
    - Ray: Gedan will use NOAA lidar data that exists, and more is coming in 2019.
    - Steven: if this works, it will have a lot of utility. It's a gamble if it will work.

- Project 8: Crayfish - not enthusiastic
- Project 9: habitattitude
  - Save for next year? Ask for clarification?
    - Jonathan: level of optimism not great around table, maybe not worth the time to ask them to rewrite their proposal. May not want to go down the road of having them write a better proposal for next year.
    - Ray, Jay, Edna agree with Jonathan.
  - Overall - no.
- **Final Decisions:**
  - **Full funding for:**
    - **Fleming: change title to refer to tidal species, evaluation of success?**
    - **Carney: ask for clarification on how to differentiate between ballast and hull fouling; more details on budget**
  - **First year of funding for:**
    - **Gedan**
    - **As for more detail from Hughes for next year**
- Next steps: Jay writes letters to funded proposals and MD Sea Grant will send letters to funded folks, funding begins September 1st.

### **3:00pm New business and decision items:**

- New member requests
  - New Jersey: potential member from a water district, interested to be involved - **Steven will connect with Jay**
    - Chris Smith is NJ state rep currently, has been active with Ray
    - Potential for the water district contacts to be interested parties or alternate
- Discussion of quarterly (interim) conference calls
  - Not necessary - if decision needs to be made, EC will discuss and inform the panel on decisions
- Next meeting (Fall 2019 MAPAIS)
  - Would be interested to have in NY or NC
  - In conjunction with North American Invasive Species Management Association?
    - Saratoga Springs in September (<https://www.naisma.org/annual-conference>)
    - Lots happening at this meeting and it would be good to have strong MAP representation
    - Downside would be registration fees associated with that meeting
  - In conjunction with North East Panel - Michelle Trimbley
    - Somewhere in lower Hudson valley?
  - **Moving forward with planning meeting in NY separately from NAISMA**
    - Look at plans from previous meeting - could recreate the meeting that got cancelled
    - Consider moving into October for weather (have snow date available)

- Send out doodle poll for dates

### 3:45pm Member / interested parties updates

- Delaware:
  - Developed invasive fish smart phone app - including map features, photos
    - Live in March 2019
    - Developing spanish language version
  - Invasive Species Council working on updating invasive species list - bringing in experts to include non-plants and aquatics
    - Used by regulators so carefully developing criteria
  - State Management Plan: meeting with Sea Grant, DENREC, DE Invasive Species Council
    - Plan to develop it after the list is finalized
  - New Invasions:
    - Snakehead locations (first impediment of choptank, tributary of Delaware river)
    - blue catfish have expanded in the Nanicoke system
  - Invasive Species Council has started small grant program - funded two projects related to bamboo removals
    - Hopefully expand into aquatics!
- SRBC:
  - Working on eDNA for snakehead and blue catfish distribution
  - Quagga mussel eradication in diving quarry on Susquehanna
    - Monitoring continuing to ensure eradication
  - Publications on didymo coming out soon
- PA:
  - Held a rapid response exercise for the NZMS (mostly internal)
  - Working to create AIS coordinator in Fish and Boat Commission
  - Follow up with Sara Stahlman for PA Sea Grant updates
- VA:
  - Nutria - attempting to bring chesapeake team down
    - New invasion moving into the Meherrin river from NC - hopefully addressing with MD team
  - Snakehead have jumped into James river basin - likely intentional introduction
    - Interagency strife about expansion prevention efforts
- USFWS:
  - Blackwater river system fish population studies are being redone to assess impacts of snakehead invasion (previously done a few years ago with no snakehead)
    - Surveys will be finishing up in June (report to follow)
- DE Sea Grant:
  - Discussions of DE management plans are moving forward
- NY:
  - DEC: awarding statewide grants for \$3M - most of funding going to rapid

- response
- Early Detection capabilities expanding via boat stewards program,
- Working to develop aquatics lab that has capability for eDNA, mesocosm studies etc.
- Efforts to control hydrilla widespread in lower Hudson watershed
  - Efforts in ponds in susquehanna; hydrilla established on Long Island
  - Elsewhere in state not too widespread
- MD Sea Grant:
  - Website updates: angler survey white paper from Fall 2018
- NC:
  - Working to develop ANS management plan (started in 2014, 2016 - was not signed by state administration/ submitted to ANSTF)
    - Agency restructuring has created a more conducive atmosphere for this to get passed
      - No large edits, mostly just updating and hoping to get passed
      - Modifying to update, hopefully getting approval in 2019
  - Aquatic Weed Control program has received doubling in funding
    - Combined with fund for shallow water dredging
  - Hydrilla projects:
    - Lake Waccamaw: management program to treat since 2013, 2019 will be the last year - tuber bank is knocked back sufficiently
    - Eno river project: treating hydrilla in a flowing system via injector system on USGS flow gage; fairly successful (interested to apply technology to other flowing systems in NC)
      - Strong community and local government partnerships
      - One section has been under treatment for 4 years, other section has been 2
    - Using florodone in both locations - pellets in lake, liquid in river
- USGS:
  - Pam Fuller retired at the end of January
  - 2 new employees - helping to fill the gaps
- MD:
  - Looking to make a risk assessment tool to add species to regulatory list for DNR
    - Looking for a more objective approach to add species to the list
    - **If anyone on this group has an assessment tool that they like and that works well (esp for fish, crustaceans) please contact Jay.**
- WV:
  - False ID snakehead in Opequan creek
  - Black carp in Berkeley county (far eastern) - working to confirm if that animal is still alive
  - Question: Is WV interested to pursue the AIS Management Plan?
    - Katie: I haven't seen that plan, but I would have to edit it and take a look.
    - **Margot will send Management Plan from MAPAIS**
    - Check in with Susan Pasko about if there have been comments or a

review process

- Find if any comments were submitted when it was written
- Important to involve other state agencies
- Interest to print additional Mid-Atlantic Field Guides?
  - Demand was not very strong, there are some still floating around
  - Ray still has a bunch
  - There is a PDF available, available in the UMD bookstore

Adjourn