Rapid Response Plan and Procedures for Responding to Aquatic Invasive Species in Pennsylvania

Sarah Whitney
Pennsylvania Sea Grant
Acknowledgements

- Sara Stahlman, Pennsylvania Sea Grant
- Leo Donovall, PISC Council Coordinator
- Jim Grazio, Pennsylvania Department of Environmental Protection
- Bob Morgan, Pennsylvania Fish and Boat Commission
Purpose of the plan

• A tool to help agencies work together to respond to new AIS infestations

• Outlines steps to follow during the response
## Development of the plan...

<table>
<thead>
<tr>
<th>Year</th>
<th>Event(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>• Began development</td>
</tr>
<tr>
<td>2009</td>
<td>• Workshop for agency staff</td>
</tr>
<tr>
<td>2010</td>
<td>• Mock exercises and field testing</td>
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<tr>
<td></td>
<td>• Round goby in Fairview gravel pits</td>
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<tr>
<td>2013</td>
<td>• Mock exercises and field testing</td>
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<td></td>
<td>• Didymo</td>
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<td></td>
<td>• New Zealand Mudsnafor</td>
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<tr>
<td>2014</td>
<td>• Plan approved by PISC</td>
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</tbody>
</table>
The plan is in use!

- Asian carp discovery in Washington County
- Water chestnut in Chester County
- Round gobies in Erie County
- This is a working document!
Plan Layout - Three Sections

• Section 1 – Flow Chart

• Section 2 – Checklist of Action Steps

• Section 3 – Supplemental/detailed information needed to support the action steps
Section 1:
Flow Chart
Section 2 - Checklist of Actions

**Action 1:**
Report suspected AIS to AIS coordinator

Completed

**Action 2:**
Is the report high priority?

Completed

**Action 3:**
Identify/verify the species

Completed

Seven action steps total
Section 3 - Details of RR Plan

- Describes details about what should be included at each step
- Example: Detection
  - Contact information
  - GPS coordinates
  - Clear, high resolution digital pictures
  - Notes about location and habitat
- Resources/references

Jim Grazio, DEP: Round gobies found at Lake LeBoeuf
• Reports may come from a wide variety of sources
  ▫ General public
  ▫ Partner organizations
  ▫ State agencies

• Report should go to the PISC coordinator
  ▫ Call 717-772-5225
  ▫ E-mail: ldonovall@pa.gov
  ▫ AIS report form
When Taking Pictures

- Left side photos
- Good contrast background
- Something for scale
- Distinguishing characteristics
Authority: Agency contact information based on taxa or location

<table>
<thead>
<tr>
<th>TAXA</th>
<th>JURISDICTIONAL AGENCY</th>
<th>AGENCY CONTACT</th>
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</thead>
<tbody>
<tr>
<td>State noxious aquatic weeds and Federal noxious aquatic weeds</td>
<td>Pennsylvania Department of Agriculture (PDA)</td>
<td>Leo Donovall Invasive Species Council Coordinator</td>
</tr>
<tr>
<td>Other non-regulated obligate aquatic plants, amphibians, reptiles, mollusks, crustaceans, and fish</td>
<td>Pennsylvania Fish and Boat Commission (PFBC)</td>
<td>Bob Morgan Lead AIS Ecologist</td>
</tr>
<tr>
<td>Other invertebrates</td>
<td>PDA (terrestrial)</td>
<td>Leo Donovall</td>
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<td>PFBC (aquatic)</td>
<td>Bob Morgan</td>
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<tr>
<td>Mammals</td>
<td>Pennsylvania Game Commission (PGC)</td>
<td>H. Eric Miller Bureau of Wildlife Habitat Management</td>
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<td>Pathogens(^3)</td>
<td>PFBC</td>
<td>Bob Morgan</td>
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<td>PDA</td>
<td>Leo Donovall</td>
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<td></td>
<td>Pennsylvania Department of Health (PDH)</td>
<td>Dr. James Rankin Jr. Secretary of Health</td>
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<td>AIS on State Park Lands</td>
<td>Department of Conservation and Natural Resources (DCNR)</td>
<td>Fawn Kearns PA Bureau of State Parks</td>
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<tr>
<td>Permitting</td>
<td>Pennsylvania Department of Environmental Protection (DEP)</td>
<td>Jim Grazio Great Lakes Biologist</td>
</tr>
</tbody>
</table>
**Action 2:**

Is the report high priority?

☐ completed
Why would a report be “low priority”?

- Species is already known in the area
- Species won’t survive PA climate
- Other reports of higher priority at same location
Round gobies in French Creek: HIGH PRIORITY

- LeBoeuf Creek is connected to biologically diverse French Creek
- Flows SW from Chautauqua County, NY to Allegheny River in Franklin
- 27 of 65 species of freshwater mussels
  - 13 are PA state threatened
  - 4 are federally endangered
- More than 80 fish species
  - 19 state listed as threatened, endangered, or candidate status

“One of America’s Last Great Places”- The Nature Conservancy
Action 3:
Identify/verify the species

☐ completed
Collecting a specimen

- May need to consult outside sources and collect a specimen...
  - Gather and document information accurately
  - Keep the specimen secure to avoid spreading
  - Note that it is **ILLEGAL** to possess or transport certain live AIS
  - Appendix C
Shipping Specimens

- **Vascular plants:**
  - Place in a Ziploc bag with water and newspaper packing

- **Invertebrates:**
  - Package securely in a small box with plenty of packing material to ensure jars or bags are not broken.

- **Vertebrates**
  - Work with USPS and recipient due to restrictions on shipping formalin and dry ice
Once verified, agency will report the occurrence internally and with:

- Partner organizations
- Federal contacts
- State parks
- Mapping initiatives:
  - iMAP invasive
  - USGS NAS
  - EDDmaps
• Step 1: Is this a new invasion?
  ▫ Yes: Go to Step 3
  ▫ No: Go to Step 2
• Step 2: If a population already exists, is it increasing?
  ▫ Yes: Go to Step 3
  ▫ No: Low Risk
• Step 3: Is the species known to cause significant impacts?
  ▫ Yes/Unknown: HIGH RISK
  ▫ No: Low risk
• Gather as much information as possible
  ▫ Round goby conference calls
  ▫ Round goby monitoring
• Identify response objectives
  ▫ Ex: Contain, manage, or eliminate round gobies from Lake LeBoeuf
• Use response options tool to compare response options
Compare:

- Resource needed
- Resources available
- Cost
- Regulations
- Permits needed
- Is this a feasible option to achieve objectives?
Action 1: Report find to regulatory agency (See Appendix A: Authority) See Sections 2.1 & 3.1

Action 2: Is the report high priority? See Sections 2.2 & 3.2

Yes

No—No further response action taken

Action 3: Identify/verify the species See Sections 2.3 & 3.3

Not verified invasive

Verified invasive

False positive—No further response action taken

Action 4: Conduct risk assessment to determine if the species is a candidate for rapid response action See Sections 2.4 & 3.4

Low/No

High or unknown risk

Action 5: Conduct site specific assessment and evaluate response options See Sections 2.5 & 3.5

Occurrence is documented and reported, but no further rapid response action is taken

Decide whether to use ICS (See Appendix F)

Action 6: Develop and implement incident response plan See Section 2.6 & 3.6

Action 7: Conduct follow-up actions See Sections 2.7 & 3.7

Consider developing press releases and contacting appropriate stakeholders and federal agencies
Action 6: Develop and Implement Incident Response Plan:

Action Plan Template:

- What are the planned actions?
- Who will be in charge of those actions?
- What regulations exist?
- What permits are needed and who will secure them?
- Funding
- Education and outreach
Next Steps for Lake LeBoeuf
Round Gobies:

• Identify and evaluate control/mitigation possibilities

• Conducted a mitigation feasibility study
  ▫ Found it was not feasible to conduct a major mitigation effort on the creek this past fall because flows were high and stream was up
  ▫ Wait until 2015 to focus on possible effort
  ▫ Focus on lowering the population

• Continue to focus on outreach and education to boaters, anglers, and recreational water users to PREVENT the spread of invasive species
Action 7: Conduct Follow-up Actions

- Continued education and outreach
- Long term survey and monitoring plan
- Evaluation
- Restoration plan
Appendices

• A: Authority
• B: Legislation
• C: Protocols for reporting and collecting specimens
• D: AIS sighting report form
• E: Pathogens
• F: ICS
Questions?

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