

**Adirondack Park Invasive Plant Program (APIPP)
2018 Spring Partner & 20-year Anniversary Celebration
Meeting Minutes**

**The Nature Conservancy, Keene Valley, NY
April 24th, 2018, 9:30-3:00**

Attendees:

Jeff Sann, Eric Holmlund, Eric Paul, Heather Coleates (Adirondack Watershed Institute); Ellen Kujawa (Lake Champlain Basin Program); Monica Door, Alex Novick (Lake George Land Conservancy); MJ Honeycutt, Don Grout (Master Gardener); Steve Young (NY Natural Heritage Program), Emma Antolos, Justin Perry (NYSDEC); Susan Smith (Charlotte Invasives Collaborative), Michael Martin (Cedar Eden Environmental); Guy Middleton (Upper Saranac Foundation); Scott Kapeller (NYSDOT); Dirk Bryant (The Nature Conservancy); Leigh Walrath (Adirondack Park Agency); Ed Griesmer (Adirondack Lakes Alliance); Nicole Pionteck (AuSable River Association); Jackie Bowen (Adirondack Council), Dan Spada (Retired Adirondack Park Agency), Tom Colarusso (USDA Aphis); Marilou Dooley (Cornell Cooperative Extension Essex County), Nina Schoch (Adirondack Center for Loon Conservation), AND Hilary Smith (Department of the Interior) on the phone!

Hilary Smith's Thoughts on APIPP's 20-year Anniversary

- Hilary gave a heartfelt thanks to everyone in the room and past partners who helped make APIPP what it is today. She highlighted that the APIPP partnership is about turning ideas into outcomes and that volunteers have been the foundation of our work!
- The program began surveying for terrestrial invasive plants which were found to be largely contained to the roadways. Surveys and boat inspections for aquatic invasive species (AIS) followed, led by partners at Paul Smith's College Adirondack Watershed Institute (AWI). The invasive species issue started also being raised at the state level and a critical mass of state partners had coalesced when Hilary joined the effort in 2002. She first led aquatic invasive plant monitoring efforts and started APIPP's volunteer monitoring network. From 2003-2010 APIPP worked to secure the necessary permits to conduct rapid response treatments for terrestrial invasive plants along the roadways and on the forest preserve. APIPP was also used as the model for the state's eight PRISM network.

Brendan Quirion's Thoughts on APIPP's [20-year Anniversary and Success Metrics](#)

- When Brendan was taking over as APIPP's manager, the program's seminal [Economic Report](#) had just been finalized. The report estimated \$468-893 in long-term economic losses to the region from just 8 high profile invasive species. One of the most striking findings was the relatively small annual amount being spent (\$4.27 million in 2013) in comparison to these potential losses.
- In 2015, APIPP deployed its first AIS rapid response team. For the last three years we've contracted with the AWI to expand the number of Adirondack lakes and ponds surveyed for AIS. The number of uninvaded lakes in the region continues to grow, strengthening the case for prevention.

- Also in 2015, the Adirondack AIS Prevention Program began, which is the first regional voluntary boat inspection and decontamination program east of the Mississippi. Now successfully operated for three years under the AWI, the program continues to intercept numerous invasives and has resulted in a marked increase in public awareness of AIS.
- In the past two years APIPP released [4 videos](#) on invasive species prevention, ID, survey and management.
- Last year APIPP's work managing Phragmites since 2010 was [published in the journal Biological Invasions](#). Brendan showed an example of an infestation located on the shore of lower Cascade Lake and how the population was increasing before management and has now been locally eradicated.
- Thanks to our volunteer network APIPP has been able to monitor 395 lakes for AIS. Of those, 75% are free of AIS today. Additionally, this last year was the first time in a decade where no newly infested lakes were reported.
- This year a premier [boat wash station is being constructed at the I-87 Glens Falls Rest Area](#). It is the first station to be constructed along a major highway in New York.
- APIPP just released the [Keep Invasive Species Out Campaign and Call to Action](#). Check out the website and please use this campaign logo on any invasive species related outreach materials. The logo can be found on the website. Also, a new suite of swag for this campaign will be available soon.
- 20-Year Success Metrics:
 - We've presented at a wide-range of events across the region. Over 433 different audiences presented to, 16,000+ participants reached, over 130 trainings offered with 3692+ participants instructed.
 - Over 9000+ road miles surveyed for terrestrial invasive species. 4,203 target species infestations mapped with only 142.5 acres infested.
 - Local eradications:
 - Eurasian Boar – APIPP assisted the NYSDEC and USDA-APHIS to locally eradicate a population in Peru, NY resulting in significant avoided impacts.
 - Eurasian watermilfoil – 2nd and 4th Lakes in Fulton Chain. These two infestations were first managed in 2012 by the AWI shortly after they were discovered. APIPP's response team returned in 2016 and found no EWM!
 - Oriental Bittersweet – 1 infestation
 - Burning Bush – 2 infestations thanks to the work of APIPP's campground manager
 - Bush Honeysuckle – 4 infestations thanks to APIPP's campground manager
 - Giant Hogweed – 10 infestations – hope to eventually eradicate from the region (16 infestations in total)
 - Swallow-worts – 10 infestations
 - Japanese barberry – 13 infestations thanks to APIPP's campground manager
 - Purple loosestrife – 17 infestations – have since transitioned to biocontrol.
 - Yellow Iris – 42 infestations
 - Knotweed – 73 infestations
 - Phragmites – 291 infestations
 - Garlic mustard – 577 infestations thanks to APIPP's campground manager

- Total = 1042! with 801 additional infestations actively being managed
- Volunteer Lake Monitoring Program Statistics:
 - Trained 546 different people with 811 different volunteers engaged
 - A total of 395 lakes surveyed to date –292 lakes uninvaded, 103 invaded.
 - 29 non-native invasive species present in the region, 22 are plants and small-bodied AIS, only 15 are high threat AIS.

Aquatic Project Update (Erin Vennie-Vollrath)

- Over the winter, APIPP updated and released its new [AIS distribution map](#). The map was created by Shannon Thol from The Nature Conservancy. The goals of the new map are to highlight the large number of uninvaded lakes in the Adirondacks and that the majority (90%) of those invaded have only 1 or 2 AIS present.
- Over the winter, Erin entered all 2017 survey data into [iMapInvasives](#). You can see the results of the surveys in iMapInvasives.
- Erin worked with iMapInvasives to complete an online mapping tool for aquatic surveys called the “Simple Aquatic Survey”. Ideally, volunteers and partners will switch over to this system instead of using paper forms. iMap staff and/or Erin will be providing training this summer during APIPP’s AIS identification and Monitoring trainings in late June.
- Over the winter, Erin and Brendan worked closely with the DEC to create site profiles for the 2018 boat decontamination stations to be deployed throughout the region.
- This will be the fourth year APIPP deploys an AIS early detection/response team. Over the last three years APIPP contracted with AWI for this work. During this time, APIPP was able to develop [baseline AIS/native plant distribution data](#) for the region. This year, APIPP is shifting the focus of the team to solely conducting early detection surveys and the team will no longer have the ability to dive for management. APIPP decided to make this shift since rapid response management was not needed over the past 3-years and was costly to have as a requirement for the team. This year APIPP will be contracting with Adirondack Research LLC for this work. Management efforts for water chestnut in Lake Alice and Loon Lake will also continue.
- Last summer Erin and Leigh Walrath (APA) completed a lake mapping pilot project using the online software, [BioBase](#), that processes and creates reports and layered maps from sonar data. The technology seems very promising, but they still have some questions about the maps and data that they’d like to figure out this summer in another round of piloting. They’ve identified a few lakes to survey (Loon Lake, Lake Alice, Hadlock Pond, and portions of Upper Saranac Lake) but are also looking for recommendations. They need lakes that are relatively small (<250 acres) and that have varying sediment types and water clarity.
- The Loon Lake Association reached out to Leigh, Erin and Guy Middleton to develop a protocol to assess the effectiveness of AIS management over time. They are planning to pilot a few different methods this summer and hope to finalize guidance for other lake associations.
- Be sure to check [APIPP’s summer calendar of events](#) for upcoming AIS trainings and events.

Terrestrial Project Update (Zack Simek)

- [2017 Field Season](#) Overview:
 - 4,203 infestations mapped
 - 405 newly mapped
 - 2,405 assessments performed
 - 798 treatments performed
 - 1,040 sites documented as having no invasive plants observed
- [2017 DEC invasives campground steward](#) overview:
 - Otto Neiler was the 2017 campground steward
 - 38 campgrounds surveyed
 - 14 species documented
 - Management progress: garlic mustard has been deemed locally eradicated from 5 campgrounds, 6 campgrounds were documented in their first year of having no garlic mustard observed
- Inter-Agency Guidelines:
 - Over the last two years, Zack has been working with DEC and APA to update. The main changes are to include BMPs for forest pests and AIS. The document has been finalized and is now awaiting signature by the APA and DEC commissioners
- APIPP Invasives Public [Report Form](#):
 - Updated website to include interactive geo-form for reporting infestations.
 - Also allows you to see current distribution to reduce duplicate reporting
- Hemlock Woolly Adelgid (HWA) Response:
 - HWA was found on Prospect Mountain (near Lake George) last summer. Three infested trees were found. APIPP assisted DEC in searching the area for additional infested trees. 224 hemlock trees were inventoried, 6.8 acres mapped and 205 trees were treated.
 - There are likely more populations. Currently looking to identify hemlock stands using remote sensing to prioritize monitoring. APIPP applied for a grant to conduct remote sensing, but was not selected, so currently looking for other funding sources.
- Invasive Plant Mobile Monitoring System:
 - Zack, Brendan, and Craig Cheeseman (TNC) have created an ArcCollector based mobile monitoring system for invasive plants. The system can be used to map invasive populations, assess their size and density, and record treatment activities.
- 2018 Field Work Update:
 - Contracting again with Invasive Plant Control (IPC) for APIPP's terrestrial invasive species rapid response team.
- APIPP's invasive species management priority setting process and map – Zack and Erin are currently running management projects through the [Invasive Plant Management Decision Analysis Tool](#) (IPMDAT) to determine which management projects should move forward. Once finalized, these will be posted on an interactive map on APIPP's website.
- Emerald Ash Borer Monitoring – this summer, APIPP will be hanging traps for EAB throughout the region. It was found last summer in the northwest corner of Franklin County and is closing in on the Park.

- Stem Injection Tool Loaner Program – APIPP has specialized herbicide injection tools available for people to borrow and conduct management on their own land. Zack is currently taking requests for 2018.
- UAS Monitoring – Zack now has all permits in place to conduct flights this field season. He has targeted wetland areas to search for Phragmites and will be testing the best height and time-of-year for the drone to fly.
- Be sure to check [APIPP's summer calendar of events](#) for upcoming terrestrial invasive species trainings and events.

Partner Round-table Updates

- **Adirondack Watershed Institute (AWI) – Eric Holmlund, Jeff Sann, Eric Paul and Heather Coleates**
 - Final year of GLRI funding. Working with SLELO and OPRHP to steward launches in the St. Lawrence River. Excited about a new site on Lake Bonaparte and hoping to make new connections and extend program's reach.
 - Some relocations of boat wash stations this year. Excited about the move of the station near Old Forge to the Rocky Mountain Trailhead in Inlet.
 - Working with Tom Williams on new business outreach initiative for program (marinas, boat sellers, other companies that depend on tourism and lake health).
 - Program coverage has decreased a small amount from last year. This is due to a change in the patchwork of funding. An opportunity to make new partnerships. Looking to partner with different local municipalities/organizations to leverage additional coverage.
 - Starting an environmental education initiative with Hamilton County SWCD to get message into schools. Have also reached out to the Akwesasne Tribe.
 - Doing pretty well to fill staffing needs around the region. Missing 1-2 people in each region.
 - Looking to have 20 boat wash stations throughout the Park. Highest number of decon stations in history of program. A lot of work yet to do. The majority of the sites have site preparation that will need to be completed before the season starts. Hopefully more than half will be open by Memorial Day. At the beginning of the program, water delivery was not much of an issue, but over time this has become a burden on partners. The ECOs units will make water exchange easier.
- **Cornell Cooperative Extension – Marilou Dooley**
 - Upcoming Master Gardener Meeting at Heaven Hill Farm in Lake Placid with presentation on invasive plants. Currently advertising for the event.
- **New York State Department of Transportation Region 1 - Scott Kappeller**
 - No new roadside boat wash stations in region 1 in 2018 except for Glens Falls rest area.
 - Advancing biocontrol research program for swallow-worts.
 - DOT annual herbicide training to be held in Saratoga Springs. May also request that APIPP provide 3-hour training on BMPS for DOT and other interested parties.

- Scott is planning to get his herbicide applicator license this summer to assist with treatments.
- looking to raise moor deck heights to reduce soil disturbance.
- **Lewis Creek Association/Charlotte Invasives Collaborative - Sue Smith**
 - Will be continuing European frog-bit management in VT.
 - Applied for funding for yellow iris management.
 - Sue also represents the tree warden in VT and is developing an EAB response plan.
 - Had Zack over to talk about Phragmites management work/publication
 - Had Asian jumping earthworm introduced to a preserve through a gift of infested compost. They had to treat the compost and will treat again this spring.
- **CCE Master Gardeners – Don Grout and MJ Honeycutt**
 - Planning to be at Farmers Markets again this summer. They're happy to share outreach materials at the markets including the new campaign materials
- **Dept. of Environmental Cons. – Bureau of Invasive Species and Ecosystem Health - Justin Perry and Emma Antolos**
 - Justin started as Bureau chief in 2017.
 - Working to advance many different contracts throughout the state.
 - Moving out of the EAB management role and looking to the next invader, spotted lanternfly. They plan to have a strong rapid response effort to spotted lantern fly.
 - The contract was approved for a state-wide invasive species documentary. Filming will begin this year.
 - Invasive Species Awareness Week (ISAW) is July 8-14. Check out the [ISAW website](#) for more information. DEC has developed a suite of new materials for ISAW. T
 - Leading a water chestnut chaser challenge and an Asian jumping worm survey – informational webinar to be held June 27.
 - Have developed an insert for "Conservation for Kids" to get kids involved with invasive species prevention and management.
 - Has released the draft [New York State Invasive Species Comprehensive Management Plan](#) and is looking for public comment. Comments due to DEC by COB on June 1, 2018.
- **Adirondack Lakes Alliance (ALA) – Ed Griesmer**
 - ALA serves as a resource to lake and river associations. Represents the needs of the regions lakes and river associations. The whole program is built on volunteers and partner resources.
 - Some of the main issues that lake associations are dealing with are invasive species management funding, AIS prevention, and road salt.
 - ALA Symposium will be held on Aug. 8 at Paul Smiths College with a major theme on road salt impacts.
 - Started an ALA Presidents Council – this is a group that will get together to help guide ALA's future work.

- **APHIS-USDA - Tom Colarusso**
 - EAB resources are dwindling, so focus is now primarily on biocontrol.
 - Assisting the St Regis/Mohawk Tribe with EAB monitoring in collaboration with the USFS.
 - Spotted Lantern Fly – a dead adult was found last year in New York; no live ones have been found. USDA will be monitoring more extensively for it this year.
 - European Cherry Fruit Fly was found in Penfield, NY. A team was called in to work on it.
 - Plum Pox Disease found in the Hudson Valley last year. USDA will be hiring teams to monitor for this.
 - Tom has kits with specimens and E&O materials to share, if anyone needs them.

- **New York Natural Heritage Program - Steve Young**
 - Thank you to APIPP and all partners for work to protect native species.
 - Will be continuing to monitor infestations affecting rare plant communities (ex. Whiteface mountain)

- **Upper Saranac Foundation – Guy Middleton**
 - Will continue staffing boat stewards (7 days a week) at two launches.
 - Second year with a boat wash station. Last year they intercepted hydrilla on a boat.
 - For management, they continue to see success in managing milfoil. Eurasian watermilfoil is now considered to be a rare plant in the lake. They've expanded milfoil management into Fish Creek Ponds – partially paid by grant from DEC.
 - Continued Asian clam survey (4th year) – no Asian clams found.

- **Adirondack Park Agency (APA) – Leigh Walrath**
 - Inter-Agency Guidelines have been updated and is currently awaiting signatures.
 - Working with Erin on monitoring program to assess the success of AIS management efforts over time. Hoping to offer guidance to lake associations on how to better track progress.
 - Working to get new boat wash stations through APA approval process.
 - Ed Snizek has announced his retirement for the end of May. Congratulations Ed!

- **Lake George Land Conservancy - Alex Novik and Monica Door**
 - A lot of ongoing work for HWA - mapping of hemlock stands throughout the Lake George region as well as sharing information and solidifying relationships to prepare for arrival of HWA.

- **Cedar Eden Environmental, LLC – Michael Martin**
 - Michael found EWM in Kiwassa, Floodwood, and other Adirondack ponds early on.
 - He is now working on aquatic plant mapping and creates aquatic plant management plans for lake associations.
 - He has worked with PRISMs across the state, and looks forward to continuing to partner with APIPP.

- **AuSable River Association (AsRA) – Nicole Pionteck**
 - Continuing outreach with anglers about AIS spread prevention and monitoring the river for invasives.
 - Also maintains the wader wash stations along the River.

- **Lake Champlain Basin Program (LCBP) - Ellen Kujawa**
 - Ellen will be covering for Meg Modley while she's out on maternity leave. Best wishes to Meg and family!
 - LCBP has awarded AIS spread prevention grants (7 are NY projects).
 - Finishing up logistics for the boat steward program. Still looking for staff on the NY shores.
 - Will be releasing the State of the Lake Report on June 15.

- **Hamilton County Soil & Water Conservation District – Caitlin Stewart**
 - Teamed up with a local maple syrup producer to hold an ALB and spotted lantern fly discussion during sap run. They have a new clerk for the region who crafted an ALB costume for Caitlin as an educational tool.
 - Caitlin and Lenny made large posters for highway department shops and ID cards for the vehicles. Lenny is working to identify locations for Japanese knotweed disposal that are well contained.
 - Working on a 'make-a-rake' workshop to be held during ISAW. Will partner with APIPP on this.
 - Reared and released galerucella beetles for purple loosestrife biocontrol last year and worked with local schools to release. Priority site on Oxbow Lake. Currently working on a video of the process.
 - Led an ALB mask making project with local schools.
 - Working with Inlet for Japanese knotweed management along the stream corridors.

- **Dept. of Interior (DOI) – Hilary Smith**
 - DOI oversees many different agencies and each agency has invasive species programs. Hilary tries to coordinate efforts.
 - There is strong support from DOI on invasive species issues.
 - 3 initiatives that DOI is working on:
 - i. Better support states – how can DOI be a better partner?
 - 1. Many different initiatives on zebra mussels in western waters. Boat inspection and decontamination is a big piece of the puzzle.
 - ii. Understanding how to streamline invasive species management and permitting requirements.
 - iii. Early Detection/Rapid Response – how can DOI better support EDRR efforts?

Guest Presentations:

[Advancements in Water Chestnut Biological Control](#) (Wade Simmons)

- Water chestnut beetle (*Galerucella birmanica*)
- Life history:

- Both larvae and adult feed on water chestnut
- Multiple generations per summer
- Two stages: larvae (2 weeks) and adult (30 days)
- Beetles collected from the Wuhan Botanical Gardens, China, in June 2016.
- Lab has refined the rearing protocol for the beetle and has a robust population.
- Have two main questions to answer:
 - Impacts to target species?
 - Risk of non-target effects?
- Assessing impacts to target species (water chestnut):
 - Using demographic models. Scaling individual information up to community. Approach is to estimate individual vital rates (the probability of transitioning between life stages).
 - Using mesocosm trials and collected vital rates from 240 individuals from 4 populations over 2 years.
 - Modeled populations under different situations: No management, conservative biocontrol, optimistic biocontrol (Reducing population by 50% every year).
- Host specificity testing – method of evaluating risk to non-target species
 - No-choice Testing - Single species test:
 - Looking for damage to plants
 - Presence of beetle eggs
 - Death of adults
 - They've completed 55 of the 57-required species
 - Multiple choice testing:
 - 8 species are being tested
- Water chestnut is attacked in N. America by the water lily leaf beetle. No evidence of large scale impact.
- Will be spending the next couple years looking at the impacts of the beetle on native water shield. The beetle does feed on water shield, but in a no-choice test the beetle population crashed.
- After summer of 2018, will be submitting a TAG petition.
- Wade Simmons can be reached at wps42@cornell.edu

Asian Jumping Earthworms: Adirondack Distribution and Anticipated Impacts

(Paul Hetzler)

- Earthworms have considerable capacity to change their environment to suit their survival.
- Asian jumping worms stay at the surface of the soil layer and the adults don't usually survive the winter. However, they produce cocoons that can survive the winter.
- They produce 2-3 generations per year.
- Identification – They are darker in color. The clitellum (ring) is lighter in color and closer to the tip of the head. Moves like a snake, very active (thrashing and jumping). Can shed its tail when handled. Parthenogenic (asexual reproduction). Cocoons are about the size of a poppy seed.
- They are toxic to other inverts, mycorrhizae, herps, fowl.
- Biology/Ecology – Reaches maturity in 60 days. Voracious appetites. Highly adaptive to temperature changes and habitat types. Cocoons over-winter. Outcompetes and pushes out

non-native European earthworms. Produces a unique (unproductive) soil signature – looks kind of like coffee grounds.

- They are spreading mainly through soil used in horticulture and plant sales.
- Paul knows of infestations in Warren County.
- Recommended BMPs:
 - Wash the soil off the roots when selling/moving plants around.
 - Mulch onsite
 - Mow leaves into lawn
 - Don't share/move plants
 - Check plants before you purchase
 - Buy certified soil, mulch, and compost. Know the origin.
- Farmers – concern about jumping worm impacts on pastures and greenhouses.
- Control – Currently being researched.
- Walt Nelson from Cornell Cooperative is assessing the impact of jumping worms in New York.
- Paul Hetzler can be reached at ph59@cornell.edu

Notes prepared by E. Vennie-Vollrath and reviewed by B. Quirion