Great Lakes Hydrilla Collaborative Introductory Webinar

(December 12, 2017)

Stakeholder Questions & Answers and Comments Submitted during the Webinar

Q & A

- Q: Will in-person meetings be considered along with webinars and online information, or is the focus of the collaborative going to be mostly electronic?
    - Answer: The collaborative has been envisioned as being more of an electronic communication – webinars coupled with the web platform. In-person meetings will be evaluated as appropriate in the future.
- Q: Hydrilla is not something that Canadians have had to deal with so far but are preparing for hydrilla. Will there be more webinars based on general education and general identification of hydrilla and how to keep an eye out for it?
    - Answer: Webinar topics have not yet been identified; that will be one of the important questions that you'll see in the survey. We are really looking for stakeholder input to identify what the webinar topics should be. If survey feedback indicates that a number of you would like species-specific information, we would certainly look to hold a webinar with that focus. At a minimum, general species information will be made available on the website, as there has been quite a bit of work done in that regard.
- Q: How long is a typical management strategy?
    - Answer: It is hard to say, but right now, we have been planning for five or more years. That should be considered a starting point as less than five years is hard to imagine and five is fairly optimistic.
- Q: Are there monitoring methods that have been used in the existing management projects that could be a template for others managing hydrilla? This would be helpful in collecting comparative information across the Great Lakes basin.
    - Answer: Yes, and that is information that we would like to make available in future webinars or online. Typically we use a point-intercept system to monitor plant biomass and this is done several times throughout the growing season. We also take sediment cores several times during the growing season to monitor what's happening with the tuber bank. There have been some interesting discoveries there that make monoecious hydrilla within our region very susceptible to treatment if it is properly timed.
- Q: What preventative strategies you're implementing to slow spread between waterbodies?
    - Answer: That's not something that the USACE deals with, but some of our partners do. Clean, Drain, and Dry is the fundamental practice for prevention of all aquatic invasive species, as recreation is the primary mode of spread.
- Q: We have different staff that focus on AIS management, monitoring, and outreach/prevention. Will it be fine for states to have different people attend individual webinars based on topic or would you prefer we have one person that always attends meetings?
    - Answer: There are no attendance requirements for the collaborative so stakeholders should feel free to attend webinars based on the topics that might be better suited to their needs or their particular management efforts.
- Q: Can you provide a bit of detail on the difference between the monoecious and dioecious forms and why one is more prevalent in some areas?

    - Answer: There are two biotypes of hydrilla found in the United States: monoecious and dioecious. The monoecious biotype has both the male and female flowers (staminate (male) and pistillate (female)) on the same plant, whereas male and female flowers are found on separate plants in the dioecious biotype. Only dioecious hydrilla with female flowers have been documented in the U.S; therefore, no seed production can occur among dioecious populations. Optimal growth and survival for dioecious hydrilla is in tropical and subtropical climates, while monoecious hydrilla is better suited for temperate climates with cooler temperatures and shorter growing seasons. Treatment strategies are similar but there is a longer growing season in the southern U.S. which changes the dynamics a little bit.
- Q: Could you please clarify the use of benthic mats for control of hydrilla, especially with the view that NYS DEC considers the use of benthic mats as ""fill"" and their use is discouraged?"
    - Answer: Benthic mat use in New York State can be a bit tricky, and each state and province is different. The burlap mats were used for Tonawanda Creek; they are very easy to use and biodegradable. They can be cut and stitched together using zip ties to get the necessary size. Patio pavers were used to keep the mats on the bottom; the burlap is neutrally buoyant once it gets wet, it sinks very easily. A floating polyline was used to mark where the pavers are. After a few weeks, the mats are collected and sometimes reused.
- Q: What evidence lets managers decide to stop herbicide treatment of hydrilla? Is it tuber numbers, years since last observation?
    - Answer: It would be both of those – tubers and years since last observation – with the caveat that everyone's threshold will be a bit different. Typically, if you have any visible patches, you would want treat those chemically or physically. Once you stop seeing plants, there is a healthy debate that can be made as to whether one to two more years of herbicide application are needed to be on the safe side, or whether you can shift to monitoring and have a response plan in place if isolated patches are found. There is really no hard and fast rule.
- Q: Do we know why Hydrilla has not yet been found in the Great Lakes?
    - Answer: Some of this is being driven by habitat requirements – the temperatures within the Great Lakes themselves, coupled with water depths. Hydrilla typically is in water in depths of under 25 feet, and Hydrilla prefers water temperatures that are at or above 68°F for at least two months. This may be some initial information to help answer why it has not been documented within the Great Lakes proper. However, there are certainly regions of the Great Lakes that have suitable habitat for Hydrilla, and why it is not there yet is an unknown. It may be due to a lack of in-depth surveys to document its presence, or that we may be at the point of the spread that it hasn't gotten there yet. Implementing sound outreach techniques that make people aware of what they can do to prevent the spread of Hydrilla is critical. Recreational boating in the Great Lakes and the movement of boats from lake to lake is a big concern that requires diligent outreach and prevention.
- Q: Many of the concerns with hydrilla sound similar to the challenges we are seeing with Eurasian milfoil in the St. Lawrence River and Great Lakes. Are there areas in the USA where hydrilla and milfoil been found in competition with each other?
    - Answer: Because Eurasian watermilfoil (EWM) is a cool season species and hydrilla is a warm season species, direct competition is not as likely as with other species and, would be limited to specific periods during the year. In North Carolina, hydrilla and EWM have co-occurred in at least two lakes and hydrilla has been far more prolific. EWM may be a

better competitor as you move north, but there is currently no documentation in scientific literature for competition between these two species in northern water bodies.

- Q: Could you please provide an update on the latest development on hybridized hydrilla?
    - Answer: Hydrilla does not hybridize in the U.S. like the watermilfoils do. It is possible that hydrilla hybridizes in areas of high population diversity (e.g. Japan), but there has been no evidence of hydrilla hybridization in the U.S.

Comments

- The north Erie County hotspots are hydrologically isolated, yes--but they are being spread by wildlife at an alarming rate. (Joe Hudson, Erie County Conservation)
- One of the distribution sources that should be consulted is iMapInvasives. In Pennsylvania, our database has the most up-to-date and pin-point location data than any other database out there. I am the admin of the PA iMap database. I would be happy to share the hydrilla data that we have in our database. Feel free to contact me anytime. My contact info is: ajewitt@paconserve.org and 412.586.2305. (Amy Jewitt, Western Pennsylvania Conservancy)
- There was a meeting between the Pennsylvania Invasive Species Council with five Pennsylvania legislators this morning in Pennsylvania. The purpose was to raise awareness about hydrilla and to work with legislators to get funding for more on-the-ground efforts. (Amy Jewitt, Western Pennsylvania Conservancy)