

Response Framework:
Butterfly Dock in Gillett

2019-Current



Photo: Butterfly dock in bloom along Unnamed stream (445000). Photo Credit: Andy Hudak

Prepared by: Amanda Smith, WDNR

Last updated by: Amanda Smith (12/14/2020)

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Early Detection and Reporting

- Report new populations of suspected invasive species on the DNR website at <http://dnr.wi.gov/topic/Invasives/report.html> or by contacting the Invasive Species Program Specialist at invasive.species@wisconsin.gov.
- Document possible invasives with photographs when possible.

Butterfly dock

On June 4, 2019, Andy Hudak and Andy Gilsdorf were travelling to a field site when they spotted a strange looking plant in bloom. They took photos (Fig. 1) and later researched what species it may be. They suspected it to be Butterfly dock and returned to the site just days later while on their way to another field site to collect a specimen. By this time the flowers were no longer visible, but they were able to collect a leaf and stalk which was submitted to Amanda Smith for verification.



Mystery Plant
Identified.msg

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Verification

- Interview the reporter to validate the detection.
- Get verification of identification by a recognized expert, accredited lab, or herbarium.
- Voucher a specimen, when appropriate.
- Conduct a site visit to verify location and population size.
- For Prohibited species, obtain a definitive confirmation of identification via a second expert and/or biological analysis.

CTH G and Schaal Rd.

Amanda pressed the specimen and shared photos that were provided by Andy Hudak with central office invasive species staff to help confirm. Staff were not able to confidently identify it without a flower so it was decided that a blooming specimen would be collected in 2020.

Unfortunately, COVID delayed WDNR staff ability to conduct fieldwork, but Amanda Smith coordinated with Alix Bjorklund from Timberland Invasives Partnership (TIP) to collect a specimen as she was allowed to enter the field. Alix visited the site on June 9, 2020 to collect a specimen, but by this time the population had already bloomed. Amanda contacted central office invasive species staff again and they reached out to other species experts who were able to confirm the species to be butterfly dock.

The pressed specimen was submitted the Wisconsin State Herbarium and the [ROI](#) status was updated to "Verified and Vouchered."



RE_ Interested in
following up on possi

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Communication

- Notify appropriate resource managers at the local, regional, state, and national levels.
- Notify local stakeholders and consider a local or statewide press release.
- Select members for management team and identify a lead coordinator.
- Establish an internal communications plan.
- Begin planning external communications.

Notify Resource Managers

Completed: June 9, 2020



New Prohibited

Species detected in O



New Prohibited



RE_ AIS

Communication Proto

Notify Local Stakeholders and Consider a Press Release

Completed: June 9, 2020. A press release was drafted and distributed given that this was only the 4th population to be documented in the state and the first population not otherwise found in a nursery/landscape setting.



Butterfly_Dock_news_r
release_June_2020_Fin

Management Team

Lead Coordinator

Amanda Smith, Response & Pathways Specialist, WDNR

Local Staff

Alix Bjorklund, TIP Coordinator, TIP

Statewide Response Coordinator

Interim – Maureen Ferry, AIS Monitoring Lead, WDNR

Lake/Stream Biologist

Brenda Nordin, Lake Biologist, WDNR

Andy Hudak, Stream Biologist, WDNR

AIS Regional Coordinator

Chris Kolasinski, WDNR

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Management Team Meetings

June 10, 2020

- Attendees: Amanda Smith, Maureen Ferry, Michelle Nault
- Discussed treatment evaluation options
- Decided that the applicator or Alix would be asked to collect pre/post-treatment species list

June 10-June 15, 2020 E-mail Communications

- E-mail communications amongst: Amanda Smith, Maureen Ferry, Kelly Kearns, Jason Granberg, Kevin Doyle
- NHC staff offered that the treatment be funded with Pittman Robertson money that was soon expiring
- Jason Granberg offered a suggestion for a local contractor
- Discussed potential requirement of NR109 permit due to proximity to stream

Internal Communication Plan

Amanda Smith will be the POC and Chris Kolasinski can be Cc'ed on e-mails in an effort to keep him in the loop; however, he does not have as much work capacity to devote to response efforts plus he covers many counties.

External Communication Plan

Alix (or Lumberjack RC&D) will be the main point of contact for the landowners and the County staff. Amanda will be the main point of contact for Alix/TIP/Lumberjack RC&D and consult with other WDNR staff as needed.

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Assessment

- Delimit the population and determine demographics of population.
- Determine appropriate timeline based on level of threat.
- Compile a knowledge base – literature reviews and species expert interviews.
- Prevent the spread – identify dispersal vectors/pathways and restrict where feasible.
- Begin marshalling resources – estimate needs and identify potential sources.

Delimit Population

Alix Bjorklund visited the site on June 9, 2020 to collect a specimen, estimate the size of the population, and determine whether the population was in the ROW, private property, or both. She determined that a majority of the population was on private property. The landowners were identified using the Oconto County Tax Parcel database (Bradley and Julie Schaal 6803 County Road G, Gillett, WI 54124).

Timeline

Due to the NR 40 Prohibited status, it was determined that monitoring and removal of this population should take place immediately.

Compile a Knowledge Base

The butterfly dock [webpage](#) was consulted during planning efforts. The applicator (Jason Wilke) also consulted his network to determine the most effective herbicide.

Prevent the Spread

Any monitoring conducted by the Management Team will follow the Department's Disinfection Protocol. Any herbicide application will also require an NR109 permit given the proximity to the unnamed stream and therefore implementing the Department's Disinfection Protocol is required.

Marshalling Resources

At the time this response framework was initiated the NHC program had ample Pittman Robertson funding that was soon expiring (i.e. June 30, 2020). These funds were used to fund the herbicide treatment in 2020. However, it was expected that the population may require multiple years of management in order to meet the goal of eradication; therefore, Amanda Smith approached TIP/Lumberjack RC&D at their November 2020 steering committee meeting to inquire if they would be willing to apply for an EDR grant. TIP/Lumberjack RC&D will draft their application over the winter of 2020.

Last updated by: Amanda Smith (12/14/2020)

Planning

- Decide on a reasonable and feasible control action (containment, eradication, partial or temporary suppression, or no action).
- Determine which management actions to undertake for selected control.
- Secure permits, if needed.

Decide on Control Action

Given the NR40 Prohibited status of water hyacinth, eradication is being pursued.

Management Actions

Control - Herbicide treatment and manual control (i.e. cutting/pulling) will be implemented annually in spring prior to flowering until the population is deemed eradicated.

Monitoring - Follow-up monitoring of the site will occur annually until multiple years of total species absence is observed. Incident Reports for each site visit will be entered and attached to the ROI. In summer of 2020, Amanda Smith will conduct reconnaissance monitoring to determine whether the population had spread or if it has stayed contained.

Permits

Due to the population being located directly adjacent to Unnamed Stream (445000) an NR109 permit is required for herbicide treatment. Future permits should be submitted well in advance of planned treatment date in order to ensure ample processing time.

- 2020 Permit by Jason Wilke



Butterfly Dock
NE-2020-43-8386 APF

Last updated by: Amanda Smith (12/14/2020)

Implementation

- Lead coordinator facilitates implementation of response plan.
- Continue public outreach efforts.

Implementation of Response Plan

The initial treatment was conducted on June 11, 2020 by Jason Wilke of Nature Care Ecological Services. Jason was able to make contact with the landowners and obtain written permission to treat the site. The landowners indicated that the butterfly dock “has been there for as long as they could remember.” Wilke treated the population with 8 oz. Aquaneat diluted to 1.5 gallons.



Butterfly Dock
Control Invoice 2020.x

Public Outreach Efforts

As mentioned on Page 5, a press release was drafted and released on June 9, 2020. The press release sparked numerous inquiries from media outlets including:

- Green Bay Gazette (<https://www.greenbaypressgazette.com/story/news/local/oconto-county/2020/07/09/invasive-plant-makes-second-appearance-state-oconto-county/5404653002/>)
- WXPR radio interview (<https://www.wxpr.org/post/butterfly-dock-invasive-found-oconto-county>)

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Monitoring and Evaluation

- Monitor progress and adapt the plan, as needed.
- Conduct response action effectiveness monitoring – evaluate the effectiveness of the response.
- Conduct surveillance monitoring – confirm that the population was contained.
- Document and disseminate findings and “lessons learned”.

Monitoring Progress & Plan Adaptation(s)

Follow-up communication with the landowners facilitated by Alix/TIP/Lumberjack RC&D on at least an annual basis will occur to check-in on the progress of the population. Plans will be adjusted to be more rigorous or incorporate additional treatment as necessary.

Treatment Efficacy

On July 7, 2020, Amanda Smith visited the site to observe treatment efficacy. Compared to photos from early June (Fig. 2), Amanda observed drastic wilting of a majority of the plants; however, numerous individual plants stalks seemed to not be as severely impacted by the herbicide treatment (Fig. 3). In an effort to damage these lingering individuals, she manual cut the stalks near the base and disposed of the cut plant material.

Prior to treatment, Jason Wilke recorded a species plant list for all other species present the day of treatment (Jewelweed, Smooth Brome, White Clover, Yellow Buttercup, Goldenrod (2 types, unsure which ones), Staghorn Sumac, Box Elder, Reed Canary, Bur Cucumber, ragweed, Henbit, Black thistle, common milkweed, stinging nettle, wood nettle, geranium, tiger Lily, sow thistle, Aspen, blue spruce and black mustard).

Alix Bjorklund was asked by Amanda Smith to do the same for post-treatment in 2020 (List – TBD).

Surveillance Monitoring

After visiting the site, Amanda Smith conducted surveillance monitoring at 14 upstream and downstream stream crossings in order to assess whether the population was contained (Table 1). The population was near the headwaters so only 1 upstream site was identified, and the other 13 sites were downstream at stream crossings (i.e. bridges, culverts). The sites were all fairly open areas thus it was sufficient to surveil the stream banks from the crossing with binoculars. No additional butterfly dock populations were observed in 2020. Incident reports were filled out for each site and attached to the ROI.

Disseminating Findings

TBD

Lessons Learned

- Make sites visits early and often to catch the short flowering window.

Last updated by: Amanda Smith (12/14/2020)

- Establish access permission for all surrounding properties in the event that the population has spread.

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Restoration

- Develop and implement a site restoration plan to restore impacted areas, if needed.

Site Restoration Plan

Post-treatment, it was evident that some type of restoration should be implemented given that the butterfly dock had shaded out virtually all other plants from growing leaving the stream bank exposed to erosion. The EDR grant will incorporate a restoration component in addition to control.

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References

N/A

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Appendices

Appendix A. List of Acronyms

Appendix B. List of Definitions

Appendix C. Tables & Figures

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Appendix A. List of Acronyms

AIS: Aquatic invasive species

CTH: County Highway

EDR: Early detection and response

GLRI: Great Lakes Restoration Initiative

ILT = Integrated Leadership Team

LWCD: Land and Water Conservation Department

OIT: Organisms in trade

POC: Point of contact

RD = road

ROI: Record of Interest

TIP: Timberland Invasives Partnership

Last updated by: Amanda Smith (12/14/2020)

Appendix B. List of Definitions

N/A

Last updated by: Amanda Smith (12/14/2020)

Appendix C. Tables & Figures



Figure 1. Butterfly dock in bloom at Unnamed stream (). Photo credit: Andy Hudak

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Figure 2. Butterfly dock population along Unnamed Stream (445000) on June 11, 2020. Photo Credit: Alix Bjorklund

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Figure 3. Butterfly dock population along Unnamed Stream (445000) on July 7, 2020. Photo Credit: Amanda Smith

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Table 1. Upstream and downstream surveillance sites selected for monitoring in 2020.

Station	WBIC	Station ID	Latitude, Longitude
Schaal Road at Unnamed 445000	444500	10053877	44.92487, -88.26441
Spring Hill Road at Unnamed 5011288	5011288	10053878	44.92509, -88.27710
UNT to Daly Creek - Valley Line Road (West)	444500	10052995	44.939495, -88.249275
Trail Road at Daly Creek	444500	10053879	44.94461, -88.24817
Daley Cr. Just Above Daley Cr. Rd	444500	10017023	44.945705, -88.24543
UNT to Daly Creek - Emond Lane	444500	10052999	44.949818, -88.22627
Dale Cr. At K	444500	10016659	44.95006, -88.21606
Kelly Brook-At Spruce Cth B 70 Feet below bridge.	443800	10020881	44.95151, -88.16448
Kelly Brook-Fireside Rd	443801	10043307	44.942444, -88.12408
Kelly Brook - 163 M upstream	443802	10016269	44.959286, -88.08713
Kelly Brook at Sunshine Rd	443803	10039264	44.959286, -88.08713
Kelly Brook - Jagiello Rd.	443804	10016739	44.963997, -88.066895
Kelly Brook - Old HWY 141	443805	10052992	44.97268, -88.04596
Little River At Cth J	441300	10022930	44.978374, -87.98586