

Groton Invasive Species Committee Meeting Minutes

17May2021

Via Zoom

Committee Members Present:

Brian Bettencourt

Olin Lathrop

Ben Wolfe

Richard Hewitt

Adam Burnett

Allison Hamilton

Charlotte Weigel

Jonathan Basch

Agenda:

- 1) Review of Minutes from last meeting
- 2) Action Items Review
- 3) Update on New Membership / New Positions
- 4) Woolly Adelgid at Sargisson Beach
- 5) Phragmites at Priest Conservation Area - possible study site
- 6) Update on Carmichael and other planned treatment sites for spring/summer; prioritization and timing
- 7) Town account for the Committee
- 8) Groton Herald Article
- 9) Upcoming Invasives Hike with Groton Conservation Trust
- 10) Discussion of Recent Correspondence with the Committee

The Meeting was called to order at 7:02 PM.

Brian Bettencourt: Welcome to Ben Wolfe

The first order of business was Review of Minutes from last meeting.

- The minutes were reviewed and edited live on screen.
- Olin Lathrop moved to accept.
- Jonathan Basch seconded.
- Richard abstained as he wasn't in attendance at the last meeting
- The motion to accept the minutes passed by unanimous roll call.

The second order of business was Action Items Review.

- Action Items:
 1. Olin Lathrop to draft Herald article, circulate to Committee for edits and comments.
 - a. See seventh order of business below
 2. Olin Lathrop to propose date for EAB treatment at Petapawag, contact Committee members for help.
 - a. See sixth order of business below. Date still to be set

3. Jonathan Basch to scout out Lovers Lane Knotweed, and propose a date for control visit based on size/condition of plants, circulate date to Committee for volunteers.
 - a. See sixth order of business below. Treatment scheduled on June 12th
4. Charlotte Weigel to look for candidate site(s) with Phragmites, preferably large(ish) mature stands, on public land, where we could mark off 2 or more blocks to do a controlled experiment on single vs. multiple applications. Discuss with Olin Lathrop whether/how the Priest Land Phragmites could be a good candidate.
 - a. See fifth order of business below
5. Ron Strohsahl to research Forsythia as invasive and suggest (potential) control on Conservation Commission land by Riverbend. One of the single Conservation Commission parcels in the development (202-52).
 - a. See sixth order of business below. Forsythia is non-native, but not considered invasive
6. Alison Hamilton to send picture of new potential invasive in field to RS for botanical identification. – Move to next meeting

The third order of business was Update on New Membership / New Positions

- New Member: Benjamin Wolfe
 - Brian Bettencourt: Welcome Ben Wolfe, interest communicated to town. Charter allows 9 members. Will make a motion to select board to have you appointed
 - Ben Wolfe: Lived in Groton 3 years. As an undergraduate studied bio control of purple loosestrife control. For his PhD studied invasive fungi. Joining the Invasive species committee is aligned with past i.e., academic interest in invasive species and being committed to the community. Ben currently has a laboratory at Tufts.
 - Olin Lathrop: Met Ben at ConCom site walk. Enthusiastic welcome to Ben
 - Richard Hewitt moved to accept the nomination of Ben to the committee
 - Jonathan Basch seconded the motion
 - The motion to accept the nomination of Ben passed by unanimous roll call.
 - Swearing in at the town and training required to become voting member
 - Email address provided by Ben to Brian
- Jonathan Basch volunteered to replace Brian as the Secretary
 - Appointment received enthusiastic support from the prior Secretary

The fourth order of business was Woolly Adelgid at Sargisson Beach

- Received an email from women spotting Woolly Adelgid at this location
 - Olin Lathrop: Exploring treatment options
 - Adam Burnett: Ground treatment is an option
 - Olin Lathrop: USDA article indicated stem injection was useless, ground treatment in soil around tree was most effective
 - Brian Bettencourt: Concern over use of non-specific treatment in ground
 - Olin Lathrop: Maybe lasts longer in the ground
 - Brian Bettencourt: We would never get permits, nor should we do a soil treatment near the beach
 - Adam Burnett: Should we do a test plot?

- Brian Bettencourt: We are not set up to do a controlled study and monitor
- Olin Lathrop: Pictures could be used to monitor treatment
- Charlotte Weigel: How many trees?
- Brian Bettencourt: Testing the efficacy is not straightforward
- Olin Lathrop: Use adjacent trees as control, if it works well, it will be obvious
- Brian Bettencourt: Not appropriate for Sargisson site
- Adam Burnett: fresh infestation on Taisey, Hayes woods
- Olin Lathrop: Adelgid at Hemlock grove
- Brian Bettencourt: Adelgid at Forest Bells
- **AI: Olin Lathrop to continue to research and propose a method of treatment**
- Olin Lathrop: Will need to purchase another insecticide

The fifth order of business was Phragmites at Priest Conservation Area - possible study site

- Charlotte Weigel to look for candidate site(s) with Phragmites, preferably large(ish) mature stands, on public land, where we could mark off 2 or more blocks to do a controlled experiment on single vs. multiple applications. Discuss with Olin Lathrop whether/how the Priest Land Phragmites could be a good candidate.
 - Charlotte Weigel: Went with Olin Lathrop to look at Priest hill conservation area. Suitable location for test plots. Preparing proposal for treatments. Shared proposal during action item review:
 - Charlotte Weigel: Found an open access review that looked at treatments. Focused on two studies 1) Eastern VA and 2) Norfolk Va beach (See screen shot 1 below)
 - Proposed study in screen shot 2 below
 - Objective: To determine optimal treatment time of Phragmites to prevent regrowth with the goal of reducing the amount of chemicals and promote rehabilitation of native species.
 - Brian Bettencourt: have read out just prior to treatments
 - Olin Lathrop: Put spring and fall in the middle
 - Brian Bettencourt: Can't do a legitimate randomized block design. Good balance of our resources
 - Adam Burnett: Experience is that Phragmites treatment in spring is not very effective
 - Charlotte Weigel: Controlled study showed treatment in June more effective than September. History of the proposal is the plan to treat Carmichael in the spring, where previous Phragmites treatment were in the fall. The proposed study will enable the effectiveness of spring treatment to be determined
 - Olin Lathrop: Carmichael - we just want to nuke it
 - **AI: Charlotte to propose dates and time and organize crew and proceed with study**
 - Charlotte Weigel: The site is pretty wet, need boots, June should be drier
 - Olin Lathrop: Don't wait until it is too high, keep less than 2 meters prefer 1.5
 - Ali Hamilton: Time involved in counting the stems- students could count stems – would have to be a weekday – class goes through the end of June Win/Win
 - **AI: Ali Hamilton to report back on student involvement to time with Phragmites growth**

The sixth order of business was Update on Carmichael and other planned treatment sites for spring/summer; prioritization and timing

- Brian Bettencourt: Brian Bettencourt and Olin Lathrop walked the site. The Phragmites is distributed, but not dense. Phragmites is in the drainage, Phragmites is upstream as well
- Olin Lathrop: All Conservation land
- Olin Lathrop: like to do it early- i.e., this weekend
- Brian Bettencourt: Treat it early and get ahead of it
- Olin Lathrop: need some additional help with spotters. Just spray – no dripping, will be some overspray. Interspersed with other plants, standing water underneath
- Brian Bettencourt: Concern with spray into the water
- Olin Lathrop: Glyphosate binds quickly to soil, breaks down quickly, will not use surfactant
- **AI for Olin Lathrop send out an email for treatment this weekend**
- Olin Lathrop to propose date for EAB treatment at Petapawag, contact Committee members for help.
 - Olin Lathrop: Not yet, walked through Petapawag, leaves are tiny not ready for treatment
 - Richard Hewitt: If we do treat, would make a good picture
- Jonathan Basch to scout out Lovers Lane Knotweed, and propose a date for control visit based on size/condition of plants, circulate date to Committee for volunteers.
 - Confirmed date June 12th at 12 noon
 - Will send an email reminder prior
- Ron Strohsahl to research Forsythia as invasive and suggest (potential) control on Conservation Commission land by Riverbend. One of the single Conservation Commission parcels in the development (202-52).
 - Brian Bettencourt: Regarding Forsythia it is not invasive but native to China. Do not recommend treating at this time. Non-native but not invasive
- Phragmites at Campbell Well site
 - Don't have the RDA yet, Will likely be reviewed on the 25th of May
- Olin Lathrop shared pictures of previous treatment sites
 - Site at Hayden rd very sparse but some growth Triclopyr or Glyphosate
 - Shattuck rd – few spots of knotweed
 - Will plan on treating both sites this weekend
 - Olin Lathrop described the approach for knotweed treatment
 - Ali Hamilton: There is a patch across the street from Shattuck rd site
 - Olin Lathrop: That is on trust land – we don't have permission yet
 - Ali Hamilton: Big spot on private land there as well

The seventh order of business was Town account for the Committee

- Olin Lathrop: Knotweed treatment on the Squanticook rail trail. On Townsend land – checking that we will get reimbursed. We don't have any way to get paid. Should we have an account at Town hall so we can receive funds?
- Brian Bettencourt: Does our charter allow us to take a gift?

- Olin Lathrop: Other committees e.g. Trail have a gift account
- Ali Hamilton moved to authorize Olin Lathrop to talk to the town about setting up an account
- Adam Burnett seconded the motion
- The motion to authorize Olin Lathrop to talk to the town about setting up an account passed with a unanimous roll call

The eighth order of business was Groton Herald Article

- Olin Lathrop to draft Herald article, circulate to Committee for edits and comments.
 - The article was reviewed and edited online with active discussion
 - Brian Bettencourt: Non-natives vs invasive
 - Olin Lathrop: Bumping up against the word count 1000 words
 - Richard Hewitt: Most non-natives are not invasive
 - All: Discussion on how to describe the impact – active discussion of what a future with unchecked invasive species would look like
 - Ben Wolfe: Emerald ash borer work speaks particularly to the role of the invasive Species Committee
 - Jonathan Basch: In the online version provide links to the brochures
 - Richard Hewitt: Provides list of most common invasives
 - All: Great start by Olin Lathrop
- Ali Hamilton moved to authorize the article as edited
- Richard Hewitt seconded the motion
- The motion to authorize the article as edited passed unanimously

The ninth order of business was Upcoming Invasives Hike with Groton Conservation Trust

- Brian Bettencourt: Volunteered to GCT to lead a hike in Shepley in June 14th at 6 pm. In 2013 there was a manual removal of barberry and honeysuckle. Can see the benefit in the treated vs. nontreated areas.

The tenth order of business was Discussion of Recent Correspondence with the Committee

- Brian Bettencourt: Deluge of people writing after the Garden Club lecture. Shows how interested people are and the importance of getting into to public eye ie Groton Herald article
- Contacted about brochure use in Harvard

The last item was Open Discussion

- Richard Hewitt: Class at Prescott on Invasives
 - Olin Lathrop: Was thinking about lecture in the fall and combine with walk
 - **AI: Olin Lathrop to get back in touch with library and get lectures on in the fall**
 - Brian Bettencourt: Sorhaug would be good spot for the hike
- Ali Hamilton: Have we thought about hiring someone to treat large infestations e.g Priest hill?
- Brian Bettencourt: Needs heavy equipment, well beyond scope of the committee
- Ali Hamilton: Treating extensive area on property, \$2600 a day
- Richard Hewitt: CPC could fund land improvement. If combined with trails or other purposes
- Olin Lathrop: Would be good to have some pictures of Ali's property before and after.
- Charlotte Weigel: How do we prioritize projects?

- Adam Burnett: Could identify priority species and projects?
- **AI: How to set priorities?**
- **AI: Dump site at Nod Rd for next meeting**
- Brian Bettencourt: Subcommittee to put together master plan and assessment of prioritization
- Adam Burnett and Charlotte Weigel
- **AI: Adam Burnett and Charlotte Weigel to discuss forming a subcommittee for prioritization of invasive species treatments sites**
- Ben Wolfe: Can we map invasive species? e.g. GIS
- Brian Bettencourt: We have prioritized sites that are doable and that we can make a difference

Adam Burnett Moved to adjourn.

Richard Hewitt Seconded.

The motion to adjourn passed unanimously.

The meeting adjourned at 8:35 PM

Figure 1: Screenshots of Phragmites study design



File

Home

Insert

Draw

Design

Transitions

1

	Study 1	Study 2
Location	Galesville, VA	Norfolk and SA Beach
Concentration/Application	2% Glyphosate (Gly) + water w/ herbicide	2% Glyphosate (Gly)
Plot size (m ²)	30m x 30m	3m x 15m
Timing/Date of Sampling	June	May and June/July
Timeline	Up to 7 years	1 year
Readouts	RT (R stems, height, % cover, bkg, etc)	R stems, shoot dry weight
Comparisons	Glyphosate vs. Imazapyr; June vs. Sept., 2% vs. 1% Imazapyr	Control vs. glyphosate and different combinations
Results	Glyphosate decreases growth 100% in 1st year and 90% in 2nd year (June) 100% in 3rd year (Sept)	Glyphosate decreases response 100% after 1 yr

2

Representative:
 Site: Field site
 Objective: To determine optimal treatment time of Phragmites to control growth with goal of reducing the
 amount of chemicals and promote rehabilitation of native species
 Approximate Size: 10m x 10m
 Conditions: 1. 2019 + 2020
 1. Spring to
 2. Fall to
 3. Spring + Fall to

Details:
 Timing of Tx
 Chemicals
 Readouts: RT and R stems, % cover, bkg, etc
 Timing of Readouts: Weekly for > 1 yr, with possible in-between

Location

Concent

Plot size
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Readout

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Results



Recording

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Phragmites stu

File

Home

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Design

Transitions

1

	Study 1	Study 2
Location	Garden VA	Norfolk and SA Beach
Concentration/Application	2% Glyphosate (systemic, water-soluble)	2% Glyphosate (7)
Plot size (m ²)	30m x 30m	3m x 15m
Timing/Date of Spring Tx	June	May and June/July
Timeline	Up to 7 years	1 year
Readouts	RTV (8 stems, height, % cover, % dry weight)	8 stems, shoot dry weight
Comparisons	Glyphosate vs. Imazapyr: June vs. Sept., 2% vs. 1% Imazapyr	Control vs. glyphosate and different combinations
Results	Glyph. decreases growth ~30% in 1st year and Sept. 2015 (June 2016, 100% 2-yr (Sept))	Glyphosate decreases response 100% after 1 yr

2

Representative:
 Site: Priest Land
 Objective: To determine optimal treatment time of Phragmites to control growth with goal of reducing the amount of chemicals and promote rehabilitation of native species
 Approximate Site: 100 x 100 ft
 3 conditions (1-2015, 2-2016, 3-2017)
 1. Spring Tx
 2. Fall Tx
 3. Spring + Fall Tx
Caveats:
 Timing of Tx
 Data reliability
 Readouts? 8 and 9 stems for readouts?
 Timing of readouts? Weekly for > 2 yrs with possible in-between?

Proposed study:
 Site: Priest Land
 Objective: To determine
 amount of chemical
Approx Site Size: 7
 3 conditions (~20

1. Spring
2. Fall Tx
3. Spring

Caveats:

Timing of
 Plot unit
 Readouts? Would
 Timing of readout