

Sandplain Grassland Network Meeting
November 15, 2021
Recorded Zoom Chat

00:52:13 Chris Neill: These citations and a portal to this literature is available on the Sandplain Grassland Network website that Karen will talk about in a minute.

00:55:08 Chris Neill: A major objective of our discussion after lunch will be to share experiences about these specific issues.

00:58:53 Steve Young: For many, maybe most floras in the Northeast, non-natives comprise about 30% of the species. Sounds like this study has the same amount.

01:01:13 Sarah Bois LLNF: <https://sandplaingrassland.net/>

01:01:34 Michael Whittemore: <https://sandplaingrassland.net/>

01:03:29 Michael Whittemore: <https://www.dropbox.com/scl/fi/elkstqo5ytb527qnhp7pz/Sandplain-grassland-sites.xlsx?dl=0&rlkey=6z3avbv7sh8sg5bbykphl3zd4>

01:25:53 Polly Weigand: Mike- What was the reference non-native species composition of Bamford before seeding with native warm season grasses.

01:28:03 Chris Neill: We have that well quantified. Lots of sweet vernal grass, orchard grass, brome, queen-anne's lace, and plantain.

01:31:44 Michael Whittemore: Yes, just looked up the data. Somewhere around 50 species, mostly non-native grasses and weedy forbs prior to restoration

01:47:02 Chris Neill: PUTTING IN NOTES: Let's make sure this idea of connecting areas for wildlife as well as plants & seeds gets discussed.

01:59:27 VICTORIA BUSTAMANTE: great Julie!

02:05:57 Jeffrey Corbin: My email - corbinj@union.edu. I would welcome reactions to our work to identify potential soils for sand plain and pine barren ecosystems.

02:06:31 Chris Neill: Great talk, Jeff. In MA I think the work at Crane Wildlife Management Area is an example of this concept—expansion of grassland habitat onto suitable land from land that was secondary forest.

02:09:36 VICTORIA BUSTAMANTE: Robert how is the deer pressure at the Kennebunk site?

02:09:39 Jeffrey Corbin: Thank you, Chris. I'll make note of that. Examples of this are very useful. Is this one of the sites that Chris Buelow has been working on?

02:10:49 VICTORIA BUSTAMANTE: I ask because the deer browse down the Liatris in Montauk

02:11:35 Chris Neill: @Jeff. Yes, that's the site.

02:12:26 William Patterson: and -- A Historical Perspective on Pitch Pine-Scrub Oak Communities in the Connecticut Valley of Massachusetts. G. Motzkin; W. A. Patterson, III; D. R. Foster. Ecosystems, Vol. 2, No. 3. (May - Jun., 1999), pp. 255-273.

02:14:07 Jeffrey Corbin: @William - Yes, your work with Glenn and David has been very helpful to us.

02:15:26 Robert Wernerehl: Deer pressure on Kennebunk Plains as far as I can see is quite low. I'm sure it is well hunted. John Bailey may have a response on this as well as his site that he will speak about is very close.

02:15:39 Derek Yorks: Victoria, I work at Kennebunk Plains quite a bit (I'm with Maine IFW which manages this WMA) and I don't think deer browsing is a significant issue with Liatris there. There are certainly deer at the site but I see far more signs of their activity and browsing in the forested areas than I do in the open parts of the site. Kennebunk plains is also an important site for black racers in Maine (which is why I spend time there).

02:17:42 Robert Wernerehl: Thanks, Derek Yorks, for these insights.

02:19:15 Sarah Bois LLNF: We have lots of problems with deer browse on Liatris on Nantucket. At my site (LLNF) we experimented with fencing off some small populations to allow for seed set, but after 3 years, the plants were diminished. We removed the fencing and the liatris came back after a year.

02:19:59 Sam Kefferstan: Question for Alex, would you be able to share a link to the paper you referenced that spoke to potential for up to 5,000 acres of cranberry bogs to be retired in coming years?

02:20:39 Alex Hackman: Help us restore sandplain grasslands around old cranberry bogs. Wanted: Your practical input to assist in construction bidding: alex.hackman@mass.gov. Thanks so much!

02:20:42 Alex Hackman: <https://onlinelibrary.wiley.com/doi/full/10.1111/rec.13037>

02:20:56 Sam Kefferstan: Thanks Alex

02:21:19 Alex Hackman: The link is to the paper with predicted acres of retirement (and conservation/restoration opps).

02:21:25 Steve Sinkevich: I was interested in the map of sandplain grassland areas referred to earlier but not seeing it on the website. Can anyone point me to it? Also Mike, Polly & Chris's paper on vegetation composition in NE Coastal Grasslands? Thanks!

02:23:33 Robert Wernerehl: Steve, I think that map is a work in progress yet.

02:25:27 Chris Neill: @Sam. Mike's map is in a paper the group is working on. The Bamford site is the same as Herring Creek that is in the Wheeler and Neill Restoration Ecology papers I posted earlier. But this does not cover the later work over the whole site that Mike talked about.

02:26:02 Jon Bailey: <https://www.mainepublic.org/environment-and-outdoors/2021-11-08/climate-driven-as-maine-warms-up-prescribed-burns-become-more-necessary>

02:26:10 Steve Young: Has anyone collected articles about deer impacts on NE grasslands? Are there any?

02:26:33 Kristen Puryear-Maine Natural Areas Program: Great summary Jon!

02:27:02 Jon Bailey: THANKS

02:27:24 Robert Wernerehl: Yes, Thanks, Jon, that really fills in the larger picture of that area. Good to see all the burning and thanks for the media link.

02:32:08 Tim Simmons: Anthophora walshii actually 1st rediscovered on Martha's Vineyard by P. Goldstein

02:34:06 Jake McCumber: Thanks, Tim! I didn't know that.

02:37:13 David Gregg, RINHS: John Ascher includes Anthophora walshii in his list of bees of Rhode Island. I don't have his specimen data but could see if I could find the reference.

02:41:19 Tim Simmons: Yes those were 1960's museum records

02:42:48 Jake McCumber: Right, A. walshii wasn't new for the area, but it was considered historic with no contemporary records. Also, confirmation of nesting in multiple intensively managed sites was important.

02:43:07 Jeffrey Corbin: Really interesting, Neil!

02:43:33 Cristina Kennedy: Have to hop off for another meeting, but thanks so much to the organizers and presenters for a great morning program!

02:43:39 David Gregg, RINHS: Interesting...Ginsberg and Rothwell a couple years ago failed to find it at Carter Preserve.

02:57:15 Michael Whittemore: That's a lot of land and a lot of work! Well done, Alex - you make it look easy out there.

03:50:27 Chris Neill: There has been discussion of avoiding soil disturbance. It was very successful on Nantucket. Are there places where you think it would also work? Or were it should be avoided?

03:52:56 David Crary: At NPS ground disturbance is generally not allowed, so surface management is needed.

03:54:26 Robert Longiaru: Soil disturbance at the Hempstead Plains seems to exacerbate invasive growth. We manage through mowing and chemical treatment with very limited soil disturbance. Also hoping for a controlled burn in 2022

03:54:49 Steve Young: At a small grassland at an antenna farm on Long Island, the site was completely bulldozed of the top layer of soil, the soil stored on the site while underground wires were replaced and then replaced back on the site. All of the grasses and many rare plants came back in the same or more abundance.

03:56:39 Chris Neill: @ Robert L and Steve Y. These seem to be two examples that are somewhat contradictory. Would some more experiments on this help? That might be something the collective group could take on.

03:57:02 Steve Young: The antenna farm was bulldozed in the early 90s but today we would be hesitant to do the same because there are many more invasive species around to take advantage of a disturbance.

03:58:34 Chris Neill: @Steve Y. That seems to be the major issue. Nantucket has a huge advantage in this regard.

04:01:05 Sara Quintal: What is the target depth for harrowing to create sufficient soil disturbance? How long of a wait should there be before seeding?

04:02:05 Karen Lombard: What are the size of the integrated treatment units at the Joint Base?

04:02:09 Robert Longiaru: Well said, Polly

04:02:33 Chris Neill: I'm curious about experiences with porcelain berry and swallow-wort. Seems to be exploding on Cape Cod.

04:04:26 Jake McCumber: Karen: probably average about 40 acres

04:04:46 Elizabeth Loucks, SMF: I don't know the history of harrowing in the firelanes at Manuel F. Correllus State Forest on Martha's Vineyard. Perhaps there was mixed results. I understand there had been a huge harrow on the forest. Some harrowing occurred in the 2000's but I heard it had a negative effect on some rare species populations.

04:04:48 Steve Young: Two invasives I have seen invading grasslands on the coastal islands a lot more in the last 10 years are Japanese honeysuckle, *Lonicera japonica*, and Memorial Rose, *Rosa lucieae*. Search iMap and iNaturalist for observations near you.

04:04:51 Sara Quintal: Black swallowwort is a growing concern for me on Buzzards Bay Coalition properties. Mugwort is the most challenging invasive we have on our successional grasslands, with swallow-wort being very problematic and difficult to control even after several years on one particular site.

04:07:34 Steve Young: For small areas in developed landscapes, what about burning very small areas, like square meters, in some kind of containment structure and keep doing that over and over.

04:10:21 William Patterson: Mowing for 20 years unproductive - what season?

04:10:41 Neil Gifford: Did harrowing itself kill scrub oak and heaths?

04:12:50 Jake McCumber: RE: size of treatment units for focused management on Camp Edwards. I misspoke earlier. The integrated treatments are more typically about 20-30 acres, rather than 40. Would never be able to keep up with return interval at that scale, but with the improved effect it works out well rotating at that scale.

04:13:53 Kelly Omand: The heavier harrowing in the moors (mowed 20 years scrub oak/heath dominated) really did kill a lot of the woody species, bringing bare soil to surface. It remained a more open mosaic with lots of graminoids and forbs that came out of the seed bank--plus the species we added in patches with seed. The lighter harrowing did not really reduce the huckleberry as much.

04:14:09 Steve Young: Article about bulldozed antenna site on Long Island.
<http://www.libotanical.org/newsletters/2901.pdf>

04:15:31 Luanne Johnson: Biochar options.

04:15:34 Julie Lundgren: NY restrictions (not full ban) on use of neonicotinoids starting in 2022 so NY folks will be looking for recommendations for alternatives

04:16:00 Luanne Johnson: Biochar
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/newsroom/stories/?cid=nrcseprd1499267>

04:16:20 David Gregg, RINHS: I'm interested in the effect of REMOVING the plant matter over and over to depauperate the soil. We're always talking about putting the vegetative matter BACK into the soil after treatment (stump grinding, biochar) but if you for example hay over and over without fertilizing or liming, you will actually end up with a warm season grassland (I can offer an example, though it's not on sand). What if you sickle mowed, raked and removed, the matter over and over?

04:16:59 Uli Lorimer: *eragrostis curvula*

04:17:11 Uli Lorimer: *Miscanthus*

04:17:50 Steve Young: Lots of African lovegrass has been planted on Long Island.

04:17:54 Uli Lorimer: callery pear

04:18:05 Julie Lundgren: About 20 acre patch of *Miscanthus* at HEcksher state park Long Island

04:18:11 Karen Lombard: RISCC network at the NE CASC at UMass has produced papers that shows NE as a hotspot for invasives with climate change.

04:18:56 Steve Young: Does Mass. have a prohibited list of invasive species that you can sell or plant?

04:19:16 Sarah Bois LLNF: Steve. Yes. We do and are working on getting many new species listed.

04:19:25 Karen Lombard: <https://www.mass.gov/massachusetts-prohibited-plant-list>

04:19:25 Jake McCumber: <https://www.mass.gov/service-details/prohibited-plant-list-background>

04:19:42 Uli Lorimer: is MIPAG still active?

04:19:59 Karen Lombard: yes - I'm chair of listing committee at MIPAG and we are reviewing four species right now

04:20:27 Karen Lombard: three were brought to us by Nantucket!

04:21:34 Steve Young: NY IS Research Institute found that most states are not good at getting future invasive species on their prohibited lists. They mostly have ones that are already common.

04:22:02 Uli Lorimer: does MIPAG have a watch list?

04:22:48 Karen Lombard: We have a long list of species we need to look at closer that exceeds the capacity of our small committee!

04:23:18 Karen Lombard: Use EDDMapS and Imap invasives to document!

04:23:57 Steve Young: Check out the new video by DEC about invasive species in New York.

04:24:11 Karro Frost: Sara, I absolutely agree with you about mugwort!

04:24:18 Steve Young: Chek out the new video by DEC on invasives in NY. <https://www.youtube.com/watch?v=NKh8Lc31rm8>

04:24:35 Karen Lombard: My recollection is that we did not have enough info on mugwork invading natural areas - not that it was not sold in trade.

04:24:36 Julie Lundgren: yes mugwort is terrible problem in NY as well as swallowwort

04:24:43 Robert Longiaru: Has anyone had any success with Chinese Bushclover?

04:25:05 Kelly Omand: We started pre-emptively treating new species popping up based on whether they were invasive in Mid-Atlantic states , trying to get ahead of the curve, but that means less "In Massachusetts" data to send to MIPAG. Picking them off early and treating even if not listed as invasive, is a good approach.

04:25:28 Steve Young: Capital Mohawk PRISM has worked on controlling Chinese Bushclover.

04:25:29 VICTORIA BUSTAMANTE: The DEC Invasives uTube is excellent!

04:25:54 Karro Frost: Kelly, document before removal.

04:26:17 Elizabeth Loucks, SMF: For the folks who work in wetlands... my land trust, Sheriff's Meadow Foundation, has a problem with Japanese Holly, Ilex crenata on two of our properties, so it would be great to have other wetlands where its growing wild in the Northeast documented.

04:27:37 Kelly Omand: Yes, we do document, but if it is one or two plants it is less compelling as invasive. We try to put a description in of the community and associated species and whether it is a conservation area, using EDDMapS, Outsmart, iNat.

04:28:17 David Gregg, RINHS: pitch pine's distribution to the south is Appalachian and replaced by loblolly on the coastal plain. Are we going to lose it as viable in climate change scenarios? Should we be getting ready to plant loblolly??

04:28:46 Steve Young: Sorry, I was mislead by common name. Chinese bushclover mostly worked on by Long Island preserves, especially Hempstead Plains.

04:31:04 Karen Lombard: Julie Richburg at Trustees has just been appointed to commission on glyphosate in MA

04:31:45 William Patterson: 14 years of biennial burning and mowing at Ram Pasture (Nantucket - 1983-1987) showed that August burning and mowing (seven times of each) reduced cover of woodies. April biennial burns (and no treatment) were a waste of time. Both increased woody plant cover in the 'long run'.

04:33:31 Dave Taft: Have to jump off for another call - thank you all, wonderful meeting ((again...)) - may be back if the call ends in time.

04:33:49 Steve Young: There have been articles about how much prairies store carbon through their huge root systems

04:35:59 Jennifer Karberg: Yes Bill - growing season burns are great on reducing cover of woodies. The ability to actually burn in the growing season when it works has been so limited for us over the past 15-20 years - we just don't have the ability to put fire on the ground in August!

04:59:49 William Patterson: Papers published in the Conference Proceedings. I have reprints of a couple of papers we presented.

04:59:52 Uli Lorimer: @saraqintal might be worth asking!

05:00:27 Chris Polatin: Sara, I don't believe the NEWP seed mix is from MA. Probably PA stock grown by Ernst.

05:01:53 Chris Neill: Who is doing that milkweed work? That might be something to pursue, more broadly.

05:03:05 Steve Young: I don't know of any example of a rare plant being swamped and eliminated by genetics of plants introduced by seed from far away. Maybe it is not a problem?

05:04:15 Jake McCumber: Chris: Uli mentioned that being done by NPT's botanist. That is definitely something that will be hugely useful to restoration and management. How important is genetic diversity and regional/local populations.

05:04:43 Roberta Lombardi: Very glad you brought that up, Karen. Some seeds need a mycorrhizal associate to grow, but some actually need some for germination.

05:04:50 Uli Lorimer: Dr Jessamine Finch did the milkweed research while at Chicago BG. I am looking for the paper...

05:07:41 Neil Gifford: We have worked w/ SUNY-ESF on fungi for scrub oak (spp) and pitch pine, but not on other spp. We find the lack of the fungi in our grasslands inhibits the success of scrub oak and pitch pine. (Yes we want more there and less in the barrens). I have 2 thesis I could share or check out Tom Horton's SUNY-ESF website.

05:07:49 Jon Bailey: <https://www.firesciencenorthatlantic.org/>

05:08:21 Steve Young: We assume that the genetics is a problem but it is hard to justify limiting seed distribution if there are no studies.

05:11:00 Robert Wernerehl: There were lots of grey lit papers in the proceedings of Midwest Prairie Conferences on the detrimental effects of moving grass seed 500 miles. Most studies I've heard about suggest anything with 300 miles is usually fine.

05:11:26 Chris Neill: We (this broader network) might be able to identify the species that would be the best, or most likely, candidates for assisted migration/restoration. Then work with the plant geneticists who might be interested collaborators.

05:11:57 Robert Wernerehl: Let's remember that some more southern species have skipped over most of New England and show up again in Nova Scotia!

05:12:19 Robert Wernerehl: Lophiola is a prime example.

05:12:19 Uli Lorimer: @Steve Young, for common plants there seems less need to limit distribution, yet your comment about Natrual Heritage being concerned about introduction of rare plants from outside our of region merits more caution

05:14:13 Steve Young: There is now a huge demand from gardeners for native species so we need to figure this out soon.

05:14:24 Julie Lundgren: Also good to keep in mind that there is little bluestem Schizachyrium scoparium as well as dune bluestem Schizachyrium littorale that is often overlooked

05:14:55 Neil Gifford: is anyone certifying their genotypes with USDA NRCS? We did this with LUPPER and ASCTUB.

05:15:12 Sarah Bois LLNF: <https://sandplaingrassland.net/>

05:16:17 Jake McCumber: Great conversation on the conservation genetics and working through it deliberately and thoughtfully. Looking forward to more of that!

05:16:33 VICTORIA BUSTAMANTE: good point Julie

05:16:40 Robert Wernerehl: On GoBotany, Schizachyrium littorale only occurs in SE Connecticut in terms of New England distribution.

05:17:05 Steve Young: S. littorale an S3 in NY.

05:17:05 Polly Weigand: Neil - Yes, LINPI advanced Source Identified Seed Production for our commercial seed and intend to do the same with our further production efforts. Source Identified Little Blue, Big Blue, and Switchgrass is available through Ernst.

05:17:33 Julie Lundgren: common on Long Island.

05:23:01 Luanne Johnson: In addition to connectivity for species like black racers, I wonder if this sandplains group would be interested in creating some areas within sandplains for racer nesting (sandy areas) as well as hibernation? We are working on both here on MV on private lands. The idea being offering racers everything they need for specific aspects of their life history so they do not need to cross roads to get to a nesting area or hibernation site. This would not solve them crossing for foraging or dispersal but could help for nesting and brumation/hibernation.

05:23:04 Julie Lundgren: Schiz littorale - I meant to say "more common than currently reported on Long Island" not common, but we at NYNHP just started tracking

05:28:10 Shea Fee: We are having trouble with just keeping up with routine maintenance mowing with our internal Stewardship staff. Capacity seems to be limited

05:28:56 Steve Young: As well as assembling a list of research questions you could also ID researchers who might do the studies.

05:30:33 VICTORIA BUSTAMANTE: Terrific meeting, thanks to all

05:32:45 Matt Penella: Kingston has a small parcel where we'll be looking to do a grassland restoration on a retired bog (at Alex and Jess' advice). We're open to suggestions, collaboration, or just reporting our results to the group.

05:33:20 Robert Wernerehl: How do we move forward QUICKLY on the cranbog edge sandplain restorations, including both dry and wet species.

05:34:55 Julie Lundgren: I work in partnership with NY State Parks and they have very limited resources to do sandplain to barrens management. Jon's idea of a team of land management expertise or capacity would be great.

05:35:16 Neil Gifford: Thank you for the opportunity and for hosting the day.

05:35:17 Steve Young: Great meeting as always. Thanks! Look forward to seeing more grasslands in New England next summer.

05:35:19 Jessica Cohn: RE: Cranberry bogs - I know guidance on seed mixes, planting plans, and soil prep that we could populate into construction plans and specs would be a great help

05:35:19 Michael Whittemore: Great conference all! Hope to connect soon mike.whittemore@tnc.org

05:35:43 Sarah Bois LLNF: Always open for collaborations. thanks all! stbois@llnf.org

05:35:58 Jake McCumber: Many thanks for bringing us all back together! This was great.

05:36:16 Julie Lundgren: Great meeting!! thank you. good to see so many of my old stomping grounds on Nantucket, Vineyard and other MA locales.

05:36:31 Uli Lorimer: Thank you all, very stimulating conversation and inspiring ideas

05:36:54 Luanne Johnson: I learne a lot today! If anyone has questions about black racers on MV or building hibernacula or our Natural Neighbors program, email me - LuanneJ@biodiversityworksmv.org

05:37:20 Jon Bailey: thanks you all, nice to see everyone, great work

05:37:21 Uli Lorimer: fine by me!

05:37:23 Steve Young: I would like to see emails.

05:37:26 Chris Polatin: Thank-you good people. I am inspired to keep going! I appreciate the efforts of the SGN very much.

05:37:28 Terra Willi: Thank you for a great meeting!

05:37:31 Robert Wernerehl: email would be helpful

05:37:32 Bill Moorhead: Many thanks for having this great conference! Feel free to share my email.

05:37:34 Kelly Omand: emails very useful

05:37:43 Matt Penella: Email is great. Thanks everyone!

05:37:46 Julie Russell: Thank you, this was fabulous.

05:38:25 Roberta Lombardi: Thank you to all the land managers and scientists working on saving these communities! I notice most of the management is for more broad scale results. I am wondering whether some of the treatments could be for more specific results for particular rare species. Some species might respond better to harrowing for example Scleria pauciflora whereas it would be devastating for some species such as

Malaxis bacardii or other sandplain orchids. It seems it would be important to look at what some of the sand plain rare species habitat needs are and what are the best treatments for their success. Thanks!