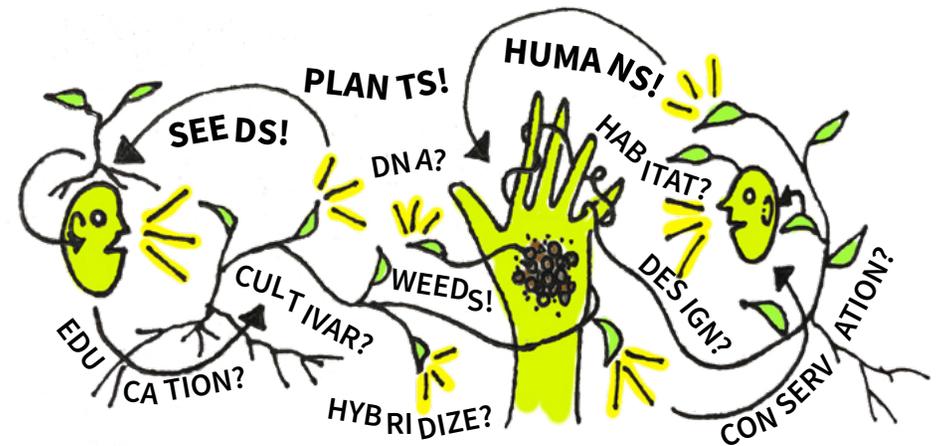




# NEXT EPOCH SEED LIBRARY

# CONVERSATIONS

with Wave Hill staff  
Winter 2017



## ISSUE 3

NESL with Matthew Turnbull,  
Assistant Director of Horticulture  
and Shane Pritchett, Gardener



NESL 2019, share & share alike  
<http://nextepochseedlibrary.com>

<http://nextepochseedlibrary.com/wavehill>

## Winter 2017 Seed Viability Testing at Wave Hill

(from seeds collected and stored in 2015, 2016, 2017)

Species, Common Name, Location Collected, germinated? (Y/N)

*Phytolacca Americana*, pokeweed, Bushwick (Y)  
*Phytolacca Americana*, pokeweed, Wave Hill (Y)  
*Ipomoea purpurea*, morning glory, Bushwick (Y)  
*Oenothera biennis*, evening primrose, Snake Hill, NJ (Y)  
*CheNpodium album*, lambsquarters, Providence, RI (Y)  
*Symphotrichum*, (heath?) aster, Snake Hill, NJ (Y)  
*Solanum lycopersicum*, (meadowlands) tomato, Snake Hill, NJ (Y)  
*Lepidium virginicum*, Virginia pepperweed, Crown Heights, Brooklyn, NY (Y)  
*Rumex crispus*, curly dock, Snake Hill, NJ (Y)  
*Rumex crispus*, curly dock, Hunters Point South, Queens, NY (Y)  
*Rumex crispus*, curly dock, Bushwick, Brooklyn, NY (N)  
*Datura stramonium*, jimson weed, Snake Hill, NJ (Y)  
*Solidago sempervirens*, seaside goldenrod, Snake Hill, NJ (Y)  
*Setaria viridis*, foxtail, William Paterson University, Wayne, NJ (Y)  
*Verbascum thapsis*, Common mullein, Snake Hill, NJ (Y)  
*Ageratina altissima*, white snakeroot, Snake Hill, NJ (N)  
*Plantago lanceolata*, buckhorn plantain, Bushwick, Brooklyn, NY (N)  
*Mentha arvensis*, wild mint, Snake Hill, NJ (Y)  
*Taraxacum officinale*, dandelion, Snake Hill, NJ (Y)  
*Rhus typhina*, staghorn sumac, Snake Hill, NJ (N)  
*Celastrus orbiculatus*, Asiatic bittersweet, Snake Hill, NJ (N)  
*Hypericum perforatum*, St John's Wort, Flushing Meadows, Queens, NY (Y)  
*Artemisia vulgaris*, common mugwort, Snake Hill, NJ (N)  
*Alliaria petiolata*, garlic mustard, Flushing Meadows, Queens, NY (N)  
*Daucus carota*, Queen Anne's Lace, Snake Hill, NJ (Y)  
*Allium vineale*, Wild garlic, Ingalls Ave, Troy, NY (N)  
*Saponaria officinalis*, Soapwort, Ingalls Ave, Troy, NY (N)  
*Asclepias incarnata*, Swamp milkweed, Bergen Arches, NJ (N)  
*Rhus glabra*, Smooth sumac, Ingalls Ave, Troy, NY (N)  
*Oenothera biennis*, evening primrose, Ingalls Ave, Troy, NY (Y)  
*Solidago canadensis*, Canada goldenrod, South Troy, NY (N)  
*Asclepias syriaca*, Common milkweed, South Troy, NY, (N)  
*Lepidium campestre*, Field pepperweed, South Troy, NY (Y)



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## THE NEXT EPOCH SEED LIBRARY (NESL)...

is an artist-run seed saving project focused on novel, spontaneous, and adaptable plants (aka weeds).

Rather than focusing exclusively on agricultural species, we gather, store, and share the seeds of plants that thrive in landscapes heavily impacted by human activity, from sidewalk cracks to superfund sites. These weedy species harbor ecological adaptability, nutritional attributes, and healing properties that have been overlooked, forgotten, and even demonized under pressure from monoculture cultivation. Reinvigorating reciprocal networks of plants and people in disturbed landscapes can contribute to a solid foundation for building ecologically just communities. Alongside our seed collection, we spearhead site-specific installations, walks and workshops, open-access curriculum materials, and deep time storage experiments. Based in Brooklyn and Jersey City, USA, we maintain a semi-permanent headquarters in Troy, NY at the Sanctuary for Independent Media's NATURELab. We've been featured at galleries and museums nationally and internationally.

## LET'S TALK! SEEDS, PLANTS, HUMANS,

**& OTHER  
PEOPLE!**

NESL was in residence at Wave Hill in Winter 2017. We used the time and space provided by the residency to set up our temporary Winter headquarters in the Glyndor Gallery Sunroom. While in residence we did seed viability testing on our collection, and organized a series of gatherings that included a reading group, garlic pesto making, and seed sorting and packaging. We also took advantage of the wealth of knowledge held in the staff at Wave Hill to do some casual, conversational interviews about plants, people, education, and conservation with folks who stopped by our winter headquarters. Thanks so much to those who participated! Portions of the interviews we carried out (edited for clarity) are reproduced in the 3 issues of this zine, along with our winter reading list and a garlic mustard pesto recipe. You can read all three interviews on our website, at [www.nextepochseedlibrary.com/wavehill](http://www.nextepochseedlibrary.com/wavehill)



# GARLIC MUSTARD

*allaria petiolata*



FIRST YEAR ROSETTE  
(SWEET + TENDER LEAVES)



SECOND YEAR STALKS + FLOWERS  
(LEAVES ARE MORE TOUGH +  
BITTER, BUT STILL EDIBLE)

## Garlic Mustard Pesto Recipe\* (*Alliaria petiolata*)

(or Reciprocal Restoration Sauce, as suggested by Jonathan)

We made this recipe for studio visitors several times during our residency at Wave Hill. The garlic mustard was collected in January from Wave Hill grounds, particularly from the Abrons Woodland Trail.

### Ingredients:

- 1 cup loosely packed, freshly collected/de-stemmed young garlic mustard leaves, rinsed/dried\*\*
- 2 tbsp roasted pepitas (pumpkin seeds)
- 2 tbsp fresh grated parmesan (for a vegan version sub a little nutritional yeast)
- 2-3 tbsp extra virgin olive oil
- pinch of sea salt, to taste

### Instructions:

- Collect your greens! Young garlic mustard greens come up in late winter and early spring, and can be used through summer. Greens are said to be milder & tastier before the plant flowers.
- Rinse leaves, remove any remaining stems, pat dry.
- Combine all ingredients in a large mortar and pestle, and grind to desired consistency, adding more olive oil as necessary.
- Season with additional sea salt to taste.
- Scoop onto crackers or bread, or toss into pasta, and enjoy!

\*Thanks to artist and Coyote Walk founder Dillon de Give for introducing us to his version of Garlic Mustard Pesto, which we riff on here.

\*\*It's probably safest to forage far from roadways and maintained landscapes, where the other foliage nearby looks healthy, to avoid exposure to herbicides and toxins often present in urban soil. Take care that you're certain about what you're foraging! Garlic mustard is pretty distinctive (smells like garlic!), but do your due diligence and forage with an expert your first time out!

## Matthew Turnbull, Assistant Director of Horticulture and Shane Pritchett, Gardener (in conversation with Ellie Irons)

M - My name is Matthew Turnbull. I'm the assistant director of horticulture at Wave Hill.

S - I'm Shane Pritchett. I'm a gardener.

E - Awesome! Here we're doing seed viability testing. We're testing our seeds from up to 2 years back that have been stored in different ways, and we're getting like a 60-70% success rate so far, which is interesting for us. So I thought one place we could start is your relationship to the plants here. Do you see a particular plant or plant community that you're excited about working with or one that's stand-out at Wave Hill, in terms of what either of you specialize in?

S - I work with natives in one of my areas, in the other I use tropicals and annuals, so it's really all different kinds, but I gravitate more towards native plants.

M - I think it's tricky here of all places, Wave Hill, because it's kind of a showcase garden, with lots of diversity from around the world. We could swap in the native version, but they might try out the European varieties or something like that. But there's weeds everywhere, so you could look down the hill and you can see what's growing really easily and then you can look up here at something that's harder to grow, and it would be cool to utilize the ones where there's no effort to make them grow, that grow in sidewalk cracks and things like that.

E - Yeah we're pretty interested in what the role of a garden like this is in terms of conservation and education. It seems to me there's several different categories of plants here. Maybe you can illuminate if there's more. I'm thinking of the ones that need to live in the glass house and need a higher level of care, and perhaps some of the natives that have a harder time, because their native habitat doesn't really exist anymore, and they need some care, and then the weeds, obviously. And then there's another category I'm curious about, which is cultivars that might be related to native plants but maybe aren't exactly the same?

M - We have cultivars of native species in our native section. So there are some straight native species there and also cultivars of natives. So they might be a smaller version of the more wild version, or maybe a different color, or something like that. And that work gets tricky as well because there's naturally occurring cultivars, so there's ones that some guy in Virginia found growing on the side of a mountain that is consistent from seed. And then there are nursery lab ones that are put in a DNA scrambler and

let's grow 500 plants and look for the freaks.

E - Totally, and they're actually purposefully getting mutations to find the one they want.

S - Let's get a dwarf version, or something.

M - And I think another factor with some of these plants is where they're growing, so you're going to see different in the pro mix here, the seaside goldenrod, the *Solidago sempervirens*. In the Carolina's that one's a great coastal plain plant that grows contained and looks great in grasses. Up here, if you put it in rich soil, it goes crazy, so all the factors in Brooklyn and stuff just falls .....

E - That's where we got the seed!

M - But it's good for that. But the only true version of that that I've seen in the city are growing in the cracks on piers where they grow to the right size. They're not like the steroid versions.

E - That's interesting, so the genome is the same, potentially, but just the situation is causing it to get bigger.

M - Yes, sand versus rich soil.

E - So this one if we keep growing in this situation, it'll probably get huge. I think I got it along the Gowanus Canal along an abandoned old parking lot that is falling into the water.

M - Definitely. And a lot of the weeds are good, strong plants, then a lot of them are used for food, right? Mugwort [*Artemisia vulgaris*] is the same genus as absinthe, and I've walked down streets and seen people cutting that, and they say it's good for their feet. They soak their feet in it. The jimson weed [*Datura stramonium*], people smoke that and it's crazy for dreams.

E - You've gotta be careful with that stuff, from what I've heard. I've not experimented! So yeah, a lot of these do have uses.

M - If you found the right use for them, you could make them useful.

E - And people talk about knotweed [*Fallopia japonica*], and that being so aggressive-- you can potentially eat it when it's young.

M - It's like the human hand in everything, distributing all these plants. It's bound to happen with globalization. You can't expect people in China to drink cans of Pepsi and not have plant reciprocation. There are theories that once plants enter, typically on the east or west port of the country, that by the time the genome goes to the other side of the country, all climate and rainfall aside, they are a weaker version of that because there's a competitive surge when they first get here, but I don't know if it's true.

## NESL Winter Reader

*A Selection of Writing on Weeds, Humans, and Possibilities for Living (Better) Together*

For discussion on January 29, 2017.

- Gary Snyder, *The Practice of the Wild: Essays by Gary Snyder*, 1990. Pages 8-15.
- Eileen Crist, "On the Poverty of Our Nomenclature", *Environmental Humanities*, vol. 3, 2013.
- Peter del Tredici, "Flora of the Future", *Places Journal*, April 2014.
- Frieda Knobloch, "The Bad Seed", *Cabinet Magazine*, Issue 10, Spring 2003.
- Michel de Certeau, *The Practice of Everyday Life*, University of California Press, 1984. Chapter 3, Pages 34-39.

Other texts mentioned in the interviews:

- Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Milkweed Editions, 2015).



The solanum, evening primrose. All your tomatoes, all your potatoes, jimson weed, they're just interesting plants that do a lot of things. A lot of them are poisonous.

E - Huh...I know the tomato family [solanum], but I didn't know that family would include jimson weed [family Solanaceae]. Cool. They are fascinating. We have a lot of them. We even have a tomato that we found growing as a volunteer in the Meadowlands, under a highway overpass.

M - Somebody might've thrown a sandwich or something.

E - Must have! But it looked really weird. It was growing lying on the ground, all spread out, not upright, probably because domestic tomatoes need all that support. So we are growing it.

S - Right. So the viney ones naturally grow like that on the ground.

E - We have the seedlings. We're going to see what happens.

M - In the city it's known that a lot of the parks will find cannabis bushes.

E - I actually found one! They were getting ready to do bioswales in Bushwick and they ripped up the concrete and just left it for a season. I was collecting seeds, and I found a baby marijuana plant.

M - There was a 15 foot one in Brooklyn Bridge Park and I just walked past it. It was just in there behind a bench. I think a lot of these weeds can be utilized if people got over certain things about that, for erosion control or for streetbank erosion...

E - They're just kind of sitting there, holding stuff down.

S - It's the only thing that's really holding it, probably.

E - Yeah, that stuff is fascinating to me. How much human energy we have available to put into managing the environment, and how much we need to put something out there and trust that something's going to work.

M - A lot of the state parks use rubrics now, they're kind of like business rubrics about whether it's worth money to make a move. They'll put in the square footage of the weed and 9 times out of 10, in the Catskills they say we can't handle it. They just let it go, because it's way too much money.

E - That's interesting, because there's this kneejerk reaction (among plant lovers who I ostensibly have much in common with), but there's the kneejerk reaction against invasives, and it seems like that kind of thing would be really helpful way to think through it.

M - Plus if not, it's chemical, so it's one or the other, so are you doing more harm with that?

E - 'Cause the hand-pulling taskforce is epic. Although I love the idea of getting kids out, pulling garlic mustard, and making pesto.

E - Wow. That's fascinating though. That's one of the things we're interested in, actually: the way we're experiencing this "McDonald's everywhere" kind of situation, where a weed comes in to the United States, and it's the same across habitats. But if there was more ability to look at this stuff [genetics]--and it's getting more common to be able to do that--I wonder how many of these species are getting close to changing enough that they might be completely different. That journey from east to west is selecting for different characteristics and different specialties.

M - Yeah and I think in some parts of the world, some of these might even be ornamental plants aside from food and we see them as a weed or enemy, and we don't design with these. Some people design with seaside goldenrod, but not the other one [Canada goldenrod]. There's probably a way to design for very low maintenance gardening, I would guess.

S - Is that a pokeweed [Phytolacca Americana]? [gestures to seedling sprouting in germination tray]

E - Yeah.

S - We were actually growing a cultivar of pokeweed that is a golden version.

E - Really!

S - Sunnyside Up is what the cultivar was, and there used to be a giant one in the flower garden. But it got really overgrown, so they took it out. But, there is actually a cultivar of that. I've seen variegated pokeweed, which is really cool. I've seen a pokeweed garden that was in PA. Yeah, all pokeweed.

E - Really, I had no idea!! So some of these have cultivars that I don't even know to look for. Or they could be escaped. So one thing we find is red amaranth [Amaranthus cruentus]. In Bushwick it's all over. And mostly it's close to people's stoops, so I feel like it's probably rewilding itself, an escaped temporary generation, or is it actually going to naturalize?

M - And you know the pokeweed is an historic native plant for these areas. It's part of Americana. They say they signed the declaration of independence with pokeweed ink as a theory. But who knows. We eat it as salads.

E - Yeah, when it's young you can eat it, and later you have to double-cook the berries right. It's toxic, but do you know if the cultivar is also?

S - I would assume, I wouldn't try it. (Laughs)

E - And another reason I've heard for people disliking this plant [pokeweed] is it has this huge root structure that is supposed to be really hard to get rid of. I've seen people cut them down and pave over the place where it was. But it's great bird nutrition, and pretty!

M - People design a lot with the mulleins.

E - Really?

M - It's a nice plant, great architectural...

E - Because it stays low and then it sends up that huge shoot.

S - There's a lot of different species. In the flower garden and the wild garden there are different mullein species.

E - Cool. So that's interesting, even from a garden designer's perspective, some of these plants have value they just need to be a little more predictable... You were saying like the seaside goldenrod. Does it get too big?

M - The seeds go everywhere

E - And it just spreads too much, it's too successful.

M - Yeah it's a little more robust it's definitely not as showy because it's huge.

E - So you have the little goldenrods like the solidago down there? There is something blooming down by the ...

S - Below the ecology building? Yeah. There's a couple of different species down there, and I have some in the wild garden. It gets really big. I have to size it down pretty much every year. It just kind of takes over.

E - Are you concerned at all with hybridization? If you were a scientific institution that had a collection mandate, it would be different.

S - Not with the solidago's, I'm not concerned about that, personally.

M - I think that's typically a problem when you're around natural areas that have indigenous plants. In the Carolinas, the big one is smooth coneflower [*Echinacea laevigata*], which is this little plant that's endemic to certain area, and people plant purple coneflower [*Echinacea purpurea*] everywhere. It's like a trend.

E - Is that the big purple echinacea thing?

M - Yeah, *Echinacea Purpurea*, so it's a trend to plant that, but you're actually doing it harm, I guess, technically, if you're planting that near the local populations without knowing it, because they're going to hybridize and you're lessening that gene pool.

E - That's another thing I noticed here. I thought I saw something that

looked like Asiatic bittersweet (*Celastrus orbiculatus*), but I wondered if it was the native version, and it might not be what it is at all, but it has the same red berries with the yellow globe that pops open. It's on the fence, past where the vans park. Do you know what I'm talking about?

S - I don't recall.

E - I just know 'cause I walk from the Metro North and walk past it.

M - Is it viney?

E - It's viney, but I can't tell 'cause it's hanging on the fence. But maybe I'll grab a little bit of it and bring it in at some point. Because I've heard from folks that that one hybridizes really readily. *Celastrus Orbiculatus* and *Celastrus Scandens* [American bittersweet].

M - The native one is really hard to find.

E - I think the highline has some. I was over there picking seeds up off the ground!

S - They have the native one?

E - That's what I heard!

M - Typically, a lot of these old estate gardens, there was a trend for the exotic plants, in the fifties and sixties all the way through...always, even now, but a lot of it did backfire, so you'll get a lot of these old gardens and you'll see burning bush [*Euonymus alatus*], you'll see things that take over woodlands--

S - Like the garlic mustard [*Alliaria petiolata*]. I think that was brought over because they wanted to grow it as a regular herb.

E - Ah, of course, it's pretty tasty! We had some pesto here last weekend. We were helping you out with the garlic mustard picking in the forest!

M - So there's a lot more education now about those kind of things, and at a garden like this there are some things I bet you that we'll at least see that a little bit, but it depends what your threshold is for that. And it's a little different because we're more enclosed by an urban area.

E - Yeah, you've got the water on one side and a bunch of pavement.

M - You see what the English Ivy [*Hedera helix*] does on the slopes down there.

E - Yeah! There's not much that's green down there, but it is happy, along with the garlic mustard.

M - It's a terrible plant. Some of the genuses are just hyper powerful plants.