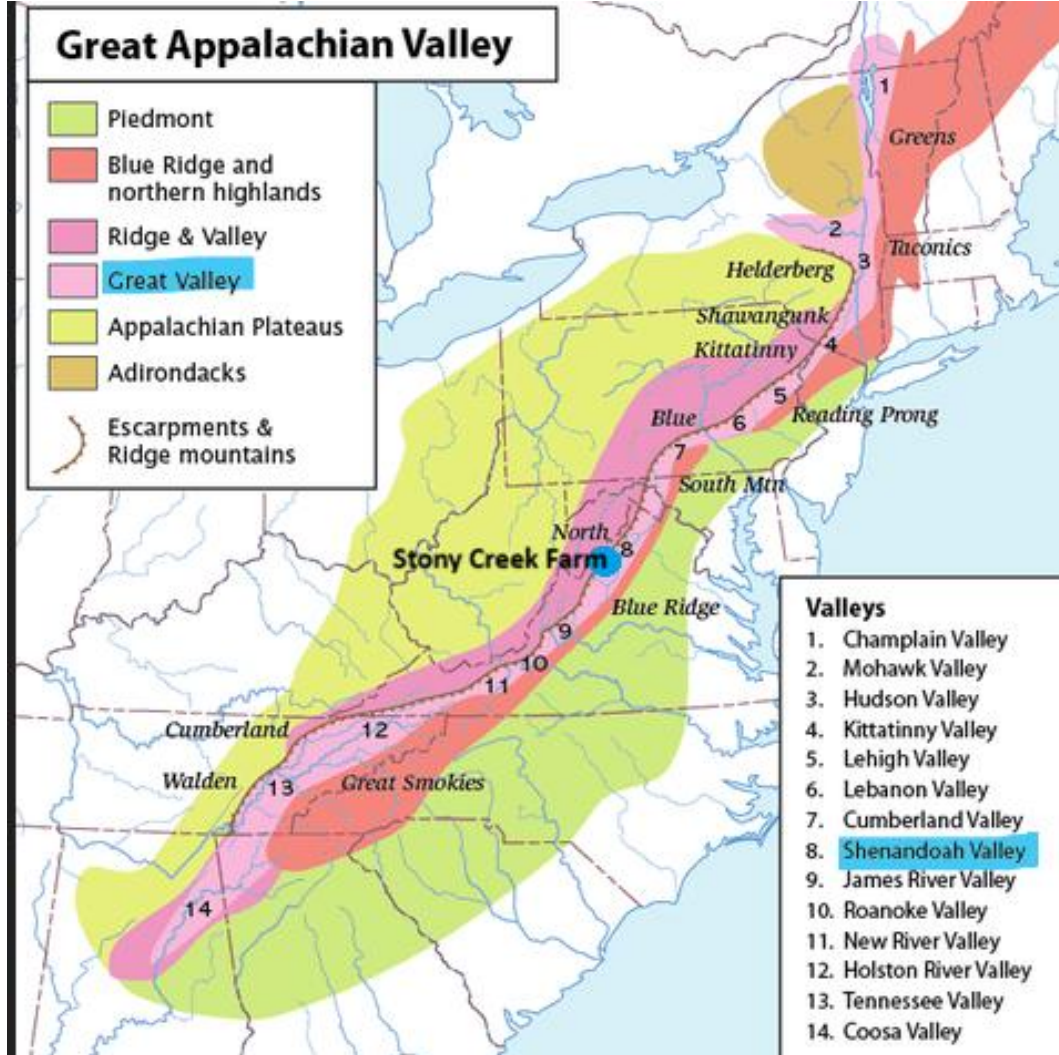

Native and Introduced Species on Stony Creek Farm

Edinburg, Virginia

Chesapeake Bay Watershed

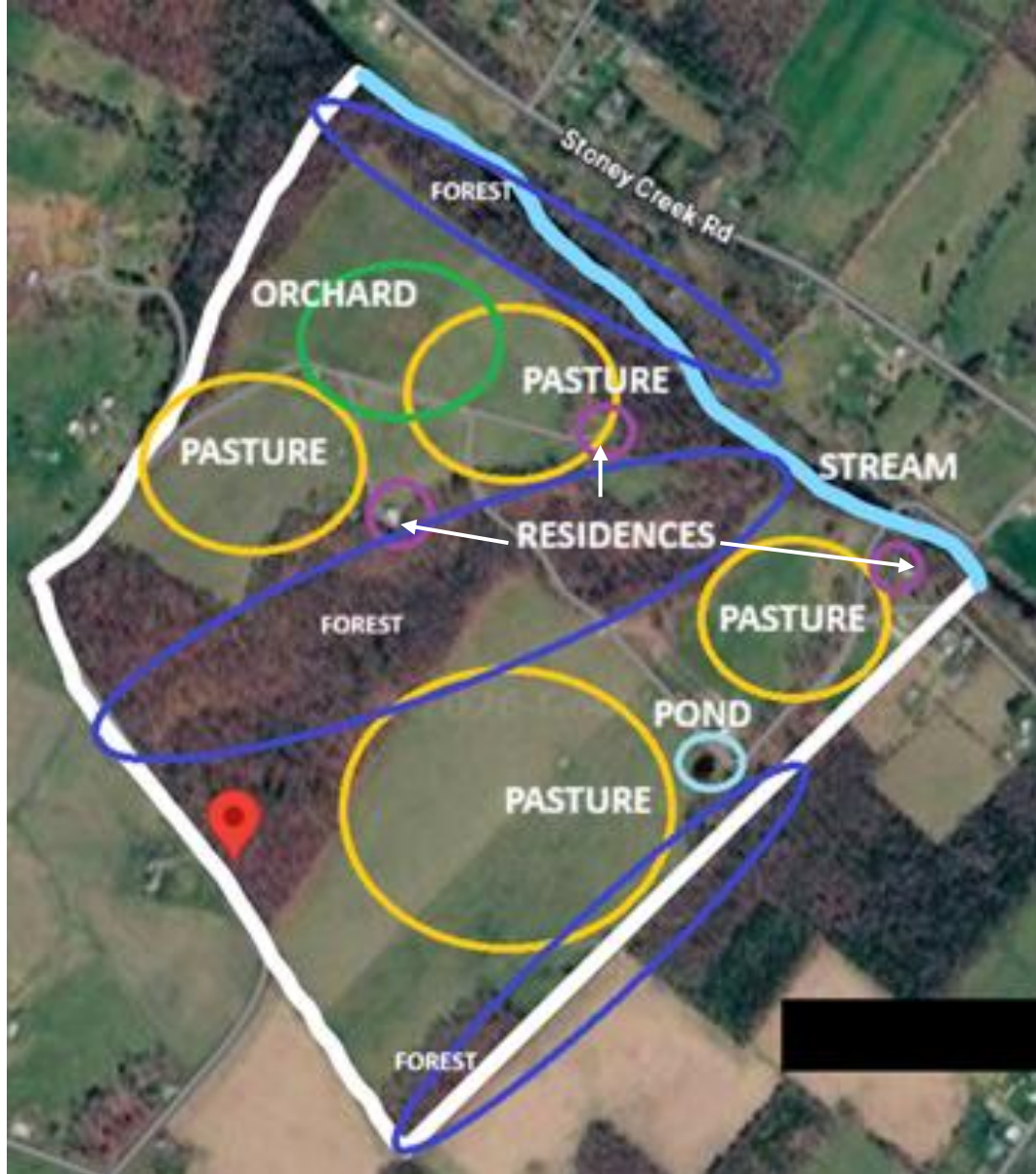
Stony Creek Farm is a third-generation farm in Virginia's Shenandoah Valley producing cattle, hay and heritage apples on 180 acres.





Location overview

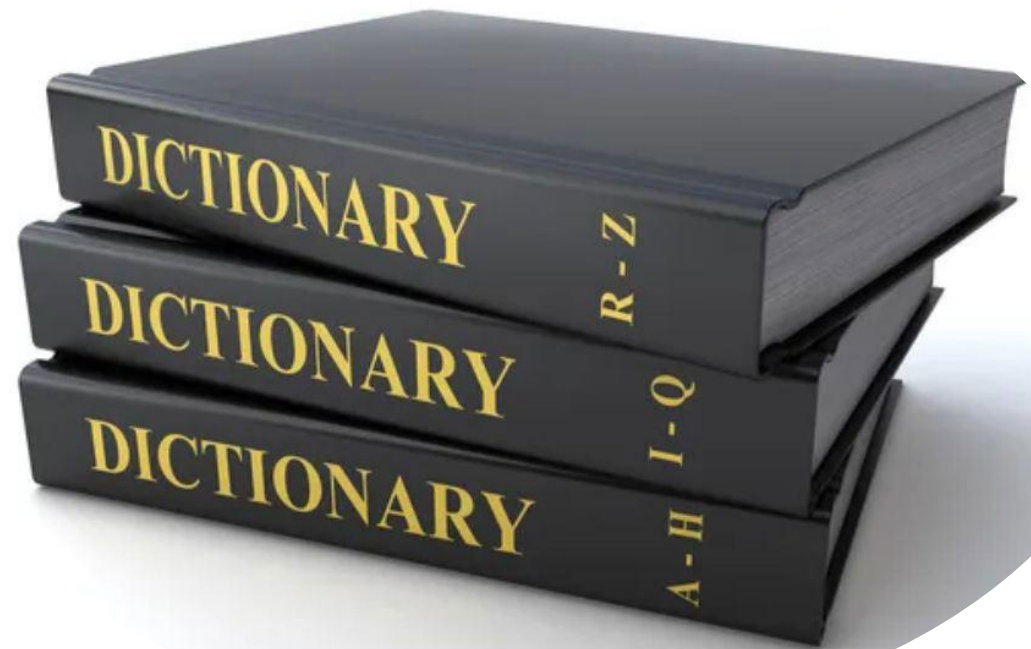
- Stony Creek Farm lies within Virginia's Shenandoah Valley, known as the "Ridge and Valley" region between the Alleghany Mountains and the Blue Ridge Mountains.
- It is a part of the great Appalachian Mountain chain, recognized "as one of the most climate-resilient, biologically diverse, and carbon-rich landscapes in the world" ([Nature Conservancy](#)).



Stony Creek Farm encompasses a variety of habitats-
including pond & stream, pasture, orchard, mixed woodland and residences.

This presentation explores native and non-native species present at Stony Creek Farm.

Let's first open the dictionary to explore these terms a bit....



Native, definition



Dictionary Thesaurus

native species

×

Q

Games Word of the Day Grammar Word Finder Slang

Dictionary

Definition

adjective

noun

Synonyms

Synonym Chooser

Example Sentences

Word History

Phrases Containing

native

2 of 2

noun

plural natives

1

: one born or reared in a particular place

2

a often **Native** plural **Natives** : an original or Indigenous inhabitant

b : something indigenous to a particular locality

3

: a local resident

especially : a person who has always lived in a place as distinguished from a visitor or a temporary resident

Native, definition - continued

I wonder...

What does “natural”
mean in this context?

Merriam-Webster Dictionary Thesaurus native species Games Word of the Day Grammar Word Finder

Dictionary
Definition

adjective
noun

6 a : grown, produced, or originating in a particular place or in the vicinity : **LOCAL**
| native fruits and vegetables

b : living or growing naturally in a particular region : **INDIGENOUS**
| native wildlife of Australia



Non-native, definition

Dictionary

Definition

Synonyms

Example Sentences

Word History

Rhymes

Entries Near

Cite this Entry

Save Word 

non-native adjective

non-na·tive (ˌnæn-ˈnā-tiv )

variants or **nonnative**

[Synonyms of non-native >](#)

: not **native**: such as

a **of a plant or animal** : living or growing in a place that is not the location of its natural occurrence

| a *non-native* fish species

| ... overgrazing causes grasslands to give way to sagebrush, mesquite and *non-native* exotic grasses, environmentalists contend.

— Doug McInnis

b : not born or raised in the place where a particular language is spoken

| *non-native* inhabitants

| a *nonnative* speaker of English [=a person who speaks English but whose native language is not English]

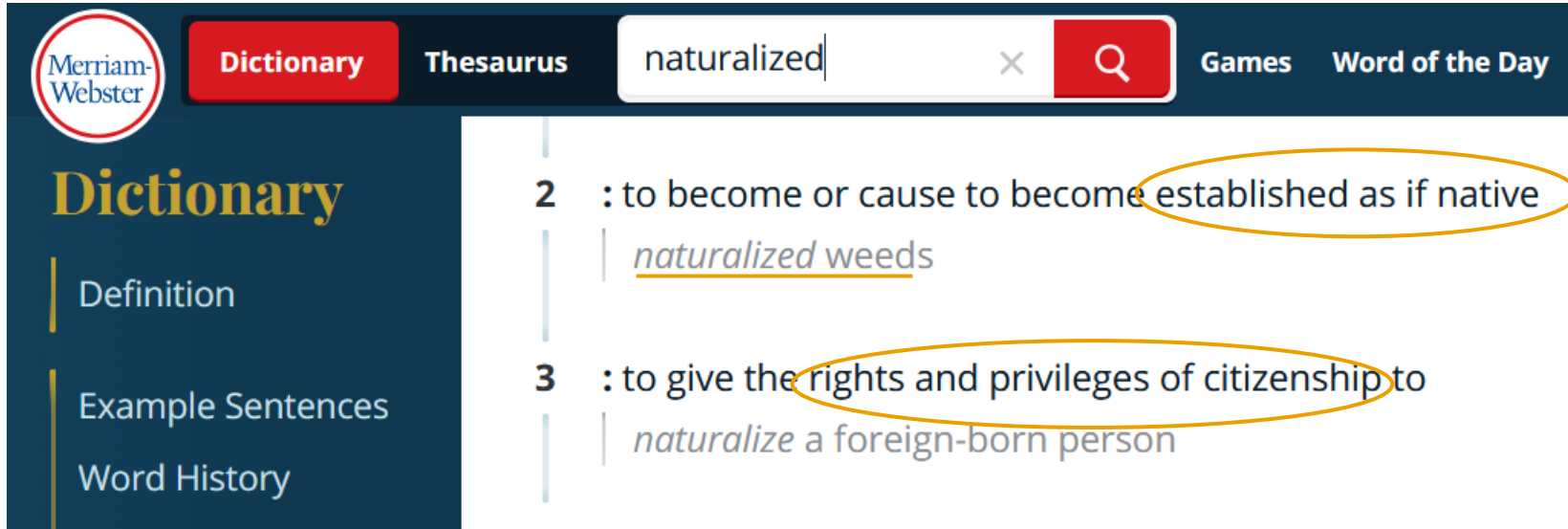
Non-native species are considered either

Naturalized

Invasive



Naturalized, definition



The image shows the Merriam-Webster Dictionary website. The search bar contains the word "naturalized". The left sidebar has a "Dictionary" tab selected, with links for "Definition", "Example Sentences", and "Word History". The main content area displays two definitions of "naturalized", each with a yellow oval highlighting the key phrase.

Merriam-Webster Dictionary Thesaurus naturalized × 🔍 Games Word of the Day

Dictionary

- Definition
- Example Sentences
- Word History

2 : to become or cause to become established as if native
naturalized weeds

3 : to give the rights and privileges of citizenship to
naturalize a foreign-born person

Invasive, definition



DictionaryThesaurusinvasive speciesGamesWord of the DayGrammarWord FinderSlang

Dictionary

Definition

adjective

noun

Example Sentences

invasive

2 of 2

noun

: an organism that is not native to the place where found and tends to grow and spread easily usually to the detriment of native species and ecosystems

Zebra mussels are the latest in a series of aquatic *invasives* to threaten Texas' inland waters.

– Shannon Tompkins

Invasive, etymology

I wonder...

Do invasive species have hostile intent?



Dictionary

Thesaurus

invasive species



Games

Word of the Day

Grammar

Word Finder

Slang

Dictionary

Definition

adjective

noun

Example Sentences

Etymology

Adjective

earlier, "attacking, offensive," going back to Middle English *invasif* "offensive (of weapons)," borrowed from Middle French and Medieval Latin; Middle French, borrowed from Medieval Latin *invāsīvus*, from Latin *invāsus*, past participle of *invādere* "to enter with hostile intent, assault, attack" + *-īvus* **-IVE** — more at **INVADE**

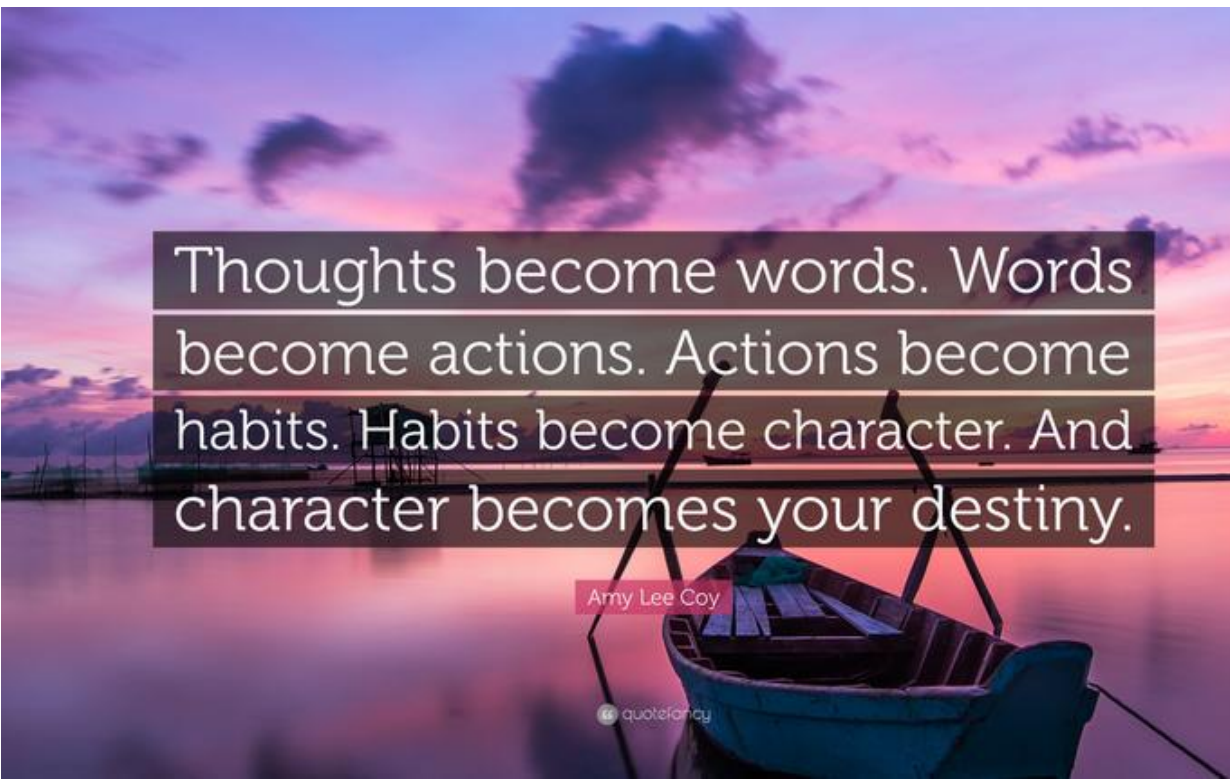


Language Matters!

“Invasiveness is itself kind of a myth.”

- Dr. Rhys Lemoine

In an interview with Sam Matey-Coste of the Weekly Anthropocene, February 2025

A quote by Amy Lee Coy is displayed in white text on a dark, semi-transparent rectangular background. The background image shows a sunset or sunrise over a body of water, with a small boat in the foreground. The sky is a mix of purple, pink, and blue, and the water reflects the colors. The boat is dark and has some equipment on it.

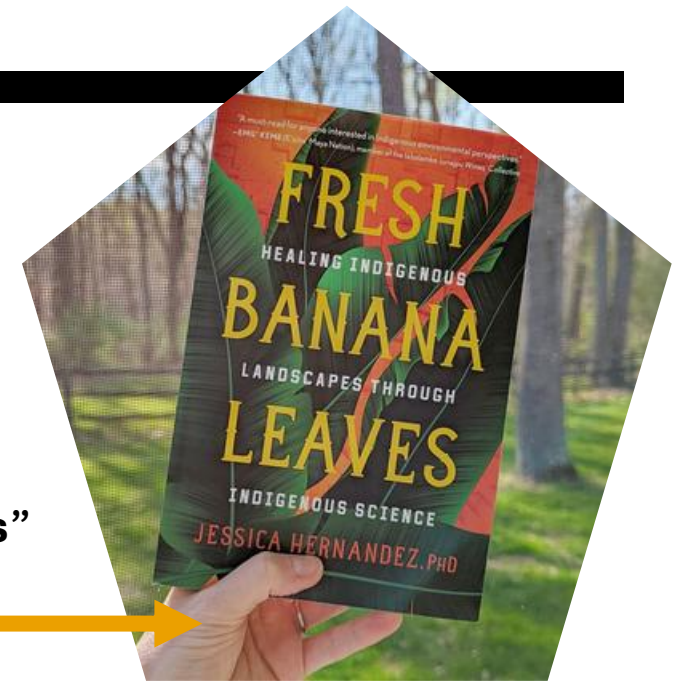
Thoughts become words. Words become actions. Actions become habits. Habits become character. And character becomes your destiny.

Amy Lee Coy

quoteofaday

Invitation: Substitute the terms
“**introduced**” or “**displaced**”
instead of non-native/invasive.

Indigenous scientist Dr. Jessica Hernandez suggests the terms “**displaced species**” or “**non-local beings**” as an alternative in her book *Fresh Banana Leaves*.



The terms **non-native** and **invasive** mirror **xenophobic language** that fears the foreigner: “alien” and “non-native” are anti-immigrant terms used in historical and current political discourse.

The term invasive vilifies the species, when in fact **human action introduced these species**, largely through imports of globalized trade.

The term invasive assumes that there is a single “original” habitat that must be restored (primarily U.S. at the time of colonization) and it **requires a colonial/ domination mindset** to return nature to that state.

An alternate framework:

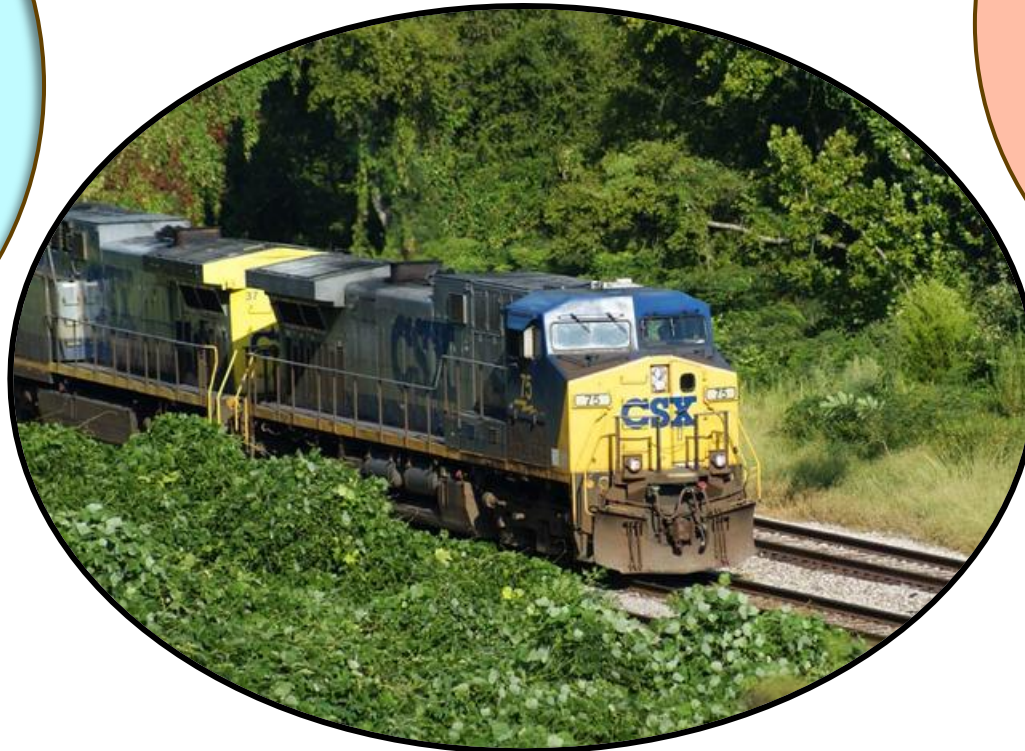
Instead of fearing “invasive species,” how might we be called to be in relation to them?

Not to say we let them grow rampantly, but instead, I suggest that we engage in restoration work with the humility that we don't know everything. We must watch, observe and converse with these plant relatives, regardless of they come from.

There may be uses to introduced species that we don't yet fully understand. Instead of attempting to recreate a lost landscape, I **suggest that we learn to work with introduced species as medicine/fiber/food**. This can help us we can mitigate their pervasiveness through activities like making garlic mustard pesto, eating blue catfish, using knotweed for Lyme disease medicine, and possibly repairing soils.

Some considerations...

Introduced species are most prominent in disturbed areas where humans have disrupted the ecosystem (i.e. rail road tracks, highways etc.



Invasive/Introduced species are growing at rapid rates compared to native species due to increased carbon dioxide levels (as a result of human-caused climate change). This is particularly true of vines (i.e. kudzu).

The following are introduced species at Stony Creek Farm, with a description and invitation to engage with these plants.



[This Photo](#) by Unknown Author is licensed under [CC BY-NC](#)

Callary Pear

(*Pyrus calleryana*)

Stony Creek Farm habitats:

- Residence
- Pond

- **Description** A deciduous tree growing to 50 feet tall, alternate leaves that turn red/purple in fall. This plant has white, fragrant flower clusters and small, round fruit. Seeds are dispersed by birds and the tree propagates from shoots.
- **Characteristics:** Native to China and Vietnam. Introduced in 1909 to Harvard University's Arnold Arboretum. The USDA later important seed to develop fire blight resistance in commercial pear orchards and was used as a rootstock source for the pear industry. Cultivars were created for landscaping trees and planted widely. Forms colonial thickets that push out other plants.
- **Other Notes:** Two callary pears have been identified at Stony Creek farm. Initially, I mistook them for wild crab apple trees. These trees provide shade in two key areas (one near a residence). If we were to remove the tree entirely, it would take away the shade that is provided to visitors (human and non-human).
- **Invitation:** The tree near the residence could be grafted with edible pear species – that way the entire tree is not lost and instead, it could provide a food source and kickstart the future food forest on this site. The callary pear near the pond could be felled directly into the pond to add woody debris, which would create wildlife habitat. A catalpa sapling has already been planted in place as a succession planting.



Tree of Heaven

(*Ailanthus altissima*)

**Stony Creek
Farm habitat:**

- Forest



- **Description:** A deciduous mid-size tree with alternate compound leaves. I first learned to identify this tree as an adolescent due to its “rancid peanut butter” smell. It has smooth, grey bark.
- **Characteristics:** Native to China and Taiwan, ailanthus was introduced to the U.S. in 1748 by a gardener in Pennsylvania and made commercially available by 1840. It is highly adapted to thrive in disturbed areas. Tree of heaven grows in fraternal stands and produces an allelopathic chemical that limits the growth of other plants. Its seeds spread by wind and rainwater and also propagates by resprouting.
- **Other Notes:** Conventional control method is “hack and squirt,” wherein you use a hatchet to cut around the tree and apply a systemic herbicide directly into the tree. The herbicide is targeted solely on this plant rather than a broad application.
- **Invitation:** Tree of heaven has a long history of use in Traditional Chinese Medicine. It is the host tree for the newly introduced spotted lantern fly that has been known to damage vineyards and orchards. The spotted lanternfly larvae feed on the bark and emit a black honeydew. This honeydew is a source of nectar for honeybees. Some beekeepers are finding that it has a smoky, desirable flavor and are marketing it as a specialty item. Artisans have also made jewelry from spotted lantern fly wings.

Multiflora Rose

(*Rosa multiflora*)

Stony Creek Farm habitats:

- Pond/Stream
- Forest

- **Description:** A multi-stemmed, climbing vine with thorns. It has white flowers and red rose hips.
- **Characteristics:** Multiflora rose forms dense thickets that shade native plants. Its seed dispersal occurs by birds and vegetative regrowth.
- **Other Notes:** Originating from Japan, Korea and Eastern China, multiflora rose was introduced in 1866 as a rootstock for ornamental roses, and then later promoted for erosion control and living fences by the Soil and Water Conservation Districts.
- **Invitation:** “The rose is the mother of the oak” (Tree, *Wilding*). Deer often do not browse on oak saplings that germinate within a rose’s growth habit. Though they are unwieldy with their thorns, roses serve a purpose to shelter young saplings. Medicine for emotional support can be made from rose flowers and rose hips are a source of Vitamin C and often made into jelly.



Japanese honey suckle

(*Lonicera japonica*)

**Stony Creek
Farm habitat:**

- Forest



- **Description:** A crawling evergreen vine with a woody stem. It has oval-shaped, opposite leaves and fragrant white and light yellow flowers.
- **Characteristics:** Native to China, Japan & Korea, Japanese honeysuckle was introduced in 1806 to New York as an ornamental plant. It's fast-growing habit smothers other vegetation and can strangle small saplings. Birds disperse the seeds.
- **Other Notes:** During a visit with a forester from Virginia Department of Forestry to Stony Creek Farm in May 2025, he recommended conducting a “mid story removal,” which would allow for more light to penetrate the forest floor and encourage more regrowth of oak and hickory saplings. Much of the forest floor is covered with Japanese honeysuckle, which stays on the ground (instead of climbing the trees) due to the shaded environment. Were we to conduct the midstory removal, it is likely that the honeysuckle would strangle the remaining trees. The forester’s recommendation was to do herbicide treatment (fall – late November with a backpack sprayer) to control the honey suckle before doing the midstory removal.
- **Invitation:** Japanese honey suckle has a history of use in Traditional Chinese Medicine for a number of ailments. The vines can also be used in basket weaving.

Hydrilla

(Hydrilla verticillata)

Stony Creek Farm habitats:

- Stream

- **Description:** Hydrilla is an aquatic plant with long stems of whorled, serrated leaves with pointed tips.
- **Characteristics:** Hydrilla forms dense mats on the water surface. Hydrilla has small tubers that persist in the mud layer and can sprout. These often survive herbicide application. The flowers can be either monoecious or dioecious, depending on the strain.
- **Other Notes:** Known as water thyme and originally from Africa, Asian, Australia and Europe. Hydrilla was introduced as a part of the aquarium trade and first detected in Florida. It arrived in the Delmarva Peninsula in the early 1980s. Three separate strains have been identified. It is spread by fragmentation, when pieces of the plant break off and are transported elsewhere – often by boat traffic.
- **Invitation:** Some online sources mention that hydrilla can be used for nutritional and medicinal benefit. I do not have personal experience with this and am cautious due to water quality concern issues. Hydrilla often grows in areas with cyanobacteria, which is toxic to humans and wildlife. Other possible uses for include fertilizer, livestock feed, bio-fuel and in waste water management.



Human being

(Homo sapiens)

**Stony Creek
Farm habitats:**

- All

- **Description:** Bipedal mammal with opposable thumbs and minimal hair; descendent from chimpanzee. Homo sapiens are omnivores and eat a varied diet of cultivated and foraged foods including plants, seafood, meat, and grains.
- **Characteristics:** Highly adaptable to many environments and known to live on all of earth's continents, though originated from central Africa.
- **Other Notes:** Known for creation of technology, art, language and culture. Responsible for the Anthropocene and cause of human-made climate change.
- **Invitation:** How might we understand humans' impact on the landscape as not inherently negative? How can we embrace an ethos of stewardship and responsibility to have a positive legacy on the land and water we are a part of?



Native species

Below are examples of native species for the following habitats at Stony Creek Farm:

- Pasture tree: **Black Walnut**, *Juglans nigra*
- Understory tree: **Sassafras**, *Sassafras albidum*
- Understory bramble: **Black raspberry**, *Rubus occidentalis*
- Understory vine: **Common Greenbrier**, *Smilax rotundifolia*
- Stream plant: **Canadian waterweed**, *Elodea canadensis*



Final thoughts



- I do not encourage dismissal or avoidance of invasive/introduced species as the solution. Instead, **I encourage engagement with these species - including removal – but in a way that shifts our relationship to them from conflict to co-evolution, use and purpose.**
 - A great example of this is Virginia Tech professor Jacob Barney’s invasive plant potluck ([Virginia Tech News](#)).
- It is helpful to **take a “deep time” perspective** to get a sense of how recent human experience on earth is. The invading plants of today may be the survivors of a future planet. As adaptable and engineering humans, we can also adapt to these new arrivals and integrate them into our lives and landscapes.

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