

# Conservation for Kids!

## All About Invasive Species!

June 7th– 13th 2020 is Invasive Species Awareness Week! (ISAW)

For more info visit: <https://nyisaw.org/>

### What are invasive species?

- ♣ They are the non-native plants, animals, and diseases that cause harm to the environment, human health and the economy. It is the species not native to the place where it is found and has moved from its native area, where it grew naturally, and is introduced to a new area.

### Why are they a problem?

- ♣ Invasive species tend to lack natural predators in their new environment. This means their population can grow quickly and outcompete native species for resources; harming food webs and sometimes endangering other species.

*On its own, Emerald Ash Borer Beetles will generally move less than four miles a year. But with help from people, it can cover 55 miles per hour in firewood, nursery stock, or personal belongings.*



Photograph of an Emerald Ash Borer Beetle—An Invasive beetle that threatens America's ash trees.

<https://www.aphis.usda.gov/aphis/>

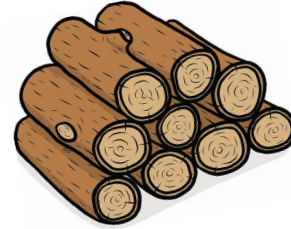


## How do they get here?

They can arrive to a new environment in many ways! Long distance spread is almost always human assisted.



- ♣ Insects often arrive by “hitch hiking” a ride in wooden crates, on firewood and in wood packing materials.
- ♣ Some invasive plants are attractive and show up in plant nurseries for sale.
- ♣ Ships can carry aquatic organisms in their ballast water, and smaller boats may carry them on their propellers.
- ♣ Some invasive species are intentionally or accidentally released as pets (Such as the Red-eared slider turtle or goldfish!).
- ♣ Short distance seed dispersal can occur as well. Once established in an area, invasive seeds can be carried by wind, stuck to animal fur or on your shoes!



© Can Stock Photo



*By recognizing and identifying invasive species we can work to control their spread, manage them properly, and raise awareness of the impacts these species have on our environment.*

# Some Invasive Species in Dutchess County

## Water Chestnut (*Trapa natans*)

Water Chestnuts are an aquatic invasive species, with floating leaves<sup>(1)</sup> that often forms dense mats<sup>(2)</sup>. The plants are rooted in bottom sediments, with feathery, submerged leaves that occur along the stem. It is found in ponds, lakes, wetlands, slow-moving parts of rivers, and estuaries. The plant produces nut-like fruits with 2-4 short, barbed spines<sup>(3)</sup> which you may find dried and washed up on the shore<sup>(4)</sup>.



Information and Photographs sourced from The Lower Hudson Prism <https://www.lhprism.org/> and the USDA

## Emerald Ash Borer (*Agrilus planipennis*)

Emerald Ash Borer (EAB), is an invasive, wood boring beetle native to Asia that feeds on and eventually kills all species of Ash. It is a small, bright-green beetle<sup>(1)</sup> that does its damage as a larva<sup>(2)</sup>. The adult beetles nibble on ash foliage but this causes little damage. The larvae however, feed on the inner bark of ash trees, disrupting the tree's ability to transport water and nutrients<sup>(3)</sup>. Its numbers build rapidly in an infestation, and these numbers will kill mature trees within 3-5 years. Woodpeckers like to eat EAB larvae; so heavy woodpecker damage on ash trees may be a sign of infestation<sup>(4)</sup>.



Information and Photographs sourced from the USDA and [www.emeraldashborer.info/](http://www.emeraldashborer.info/)



## Japanese Barberry

(*Berberis thunbergii*)

### LEAF

Small, spoon-shaped leaves with a smooth edge(3). Each leaf cluster contains a single needle-like thorn

### GROWTH FORM

Dense compact, multi-stemmed shrub with arching branches

### FRUIT

Small oblong/oval red berries persist throughout the winter (4)

### Flower

Small white to yellow flowers dangle along the branches May-June(2).



The Japanese Barberry is a highly invasive shrub/woody bush (1). It is a compact, thorny shrub that is easily identified by its small, narrowly oval leaves and spines. Due to its seed production, it rapidly achieves understory dominance.

## Garlic Mustard

(*Alliaria petiolate*)

### LEAF

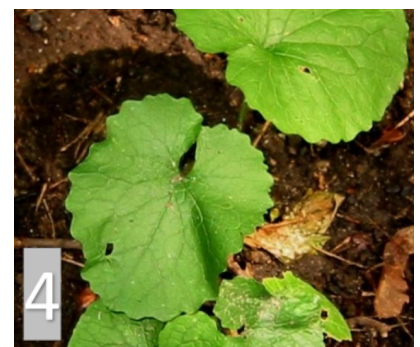
Has a 2 year life cycle with first year plants growing low to the ground in rosettes of rounded leaves(4) and second year plants growing much taller with pointed leaves and white flowers(3). No matter the age, the leaves smell like garlic although the smell is weaker in older plants!

### FRUIT

Hundreds of seeds grow in multiple green spike-like projections called siliques(2) on second year plants. Fruits appear May-July

### Flower

Several flowers with 4 white petals each are bunched/clustered together at the top of second year plants(1). Appears April-June on second year plants.



The Garlic Mustard is an herbaceous plant of the Mustard Family that is an invader of forest understories. It has a biennial lifecycle, which means it takes the species two years to fully mature and produce seed. This nonnative herb can form dense strands that have the potential to control light, water, and nutrient resources, and thus out-compete native herbs that occupy a similar habitat.

# What you can do to help stop the spread!

1. **Clean your Hiking boots, Equipment & Clothing.** When Hiking make sure to brush off your boots to prevent transporting invasive plant seeds and pieces.



2. **Plant Native.** Use native plants in your garden and landscape.



3. **Always Clean, Drain, and Dry your boat** to remove aquatic invasive species. Do this with any water equipment including waiters. and fishing equipment.



**STOP AQUATIC  
HITCHHIKERS!**  
Be A Good Steward. Clean. Drain. Dry.

4. **Don't move firewood! Use local firewood!**

Invertebrates and plants can easily hitch a ride on the firewood you haul to or from a campsite — you could inadvertently introduce an invasive species to a new area.



5. **Don't release any pets.** If you are unable to care for a pet do not release it into the wild. Unwanted fish from aquariums can cause harm if released.



6. **Report!** If you think you found invasive species in your neighborhood you can report it on IMapInvasives or submit it here:

<https://www.lhprism.org/report-species>

# Conservation Activity

*Find the words in the word search!*

D Q  
H D D E  
Q N A C F X  
A T E L H R N B  
N K R L A R U T A N  
S F P K E O V I V T E A  
S J S N A E L C T H V C L T  
H P J K X D M P A W E L Y E T I  
D O E A N Y V R Y C P R W J B S E V  
J K I C I N V A S I V E B H Q T X N E E  
L D A I F A Z R I C I T A U Q A J S I B  
R N E E Q Q E K I H H C T I H U N R  
E S D O O W E R I F E W T T A M  
W T C W X J J B A O B E M H  
O T N A L P T E U P U S  
L H R V M Q R S H C  
F B D V H H S Y  
N J S D A U  
Q C T O  
N P

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AQUATIC  
FIREWOOD  
HERBACEOUS  
INSECT  
NATURAL  
SPECIES

BEETLE  
FLOWER  
HITCHHIKE  
INVASIVE  
PLANT  
SPREAD

CLEAN  
FRUIT  
HUMAN  
NATIVE  
SHRUB