

Bamboo as an Invasive Species in New Jersey

Raising Awareness at Rutgers Gardens of the Impact on Native Habitats

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Summary (JDa)

Bamboo is a plant native to China that was brought to the United States due to its unique and exotic look. Many use bamboo in a decorative and ornamental fashion, often planting it in their own yards. However, the aesthetic appeal of bamboo masks the fact that the plant is indeed an invasive species in our country, and as with any invasive species, brings consequences that must be dealt with. Once established in the environment, bamboo has ecological impacts that can easily result in overgrowth that is difficult to control, pushing native plants out of their natural environment. People who plant bamboo are often unaware of the methods used to control its spread, such as the installment of physical barriers to stop the spread of the bamboo's rhizomes and tedious cutting of the stalks year after year. In order to address the issue of raising awareness of the invasiveness of the species, our service project focused on addressing the issue in a local bamboo forest found on the public land known as "Rutgers Gardens". Rutgers Gardens contained a bamboo forest that was allowed to grow to an immense size. When people see the forest themselves, they are often motivated to bring bamboo back to their own yards and plant it without knowing how difficult it is to control. In order to raise awareness, we proposed the installment of a warning sign educating people to the effect of growing bamboo in the United States on native species of plants and the surrounding environment.

Video Link

Bamboo as an Invasive Species: <http://www.youtube.com/watch?v=d-DBMG2G3w8>

The Issue: Bamboo

Bamboo growing patterns (JDi)

There are over 70 species of bamboo divided into approximately 1,450 species. Therefore, bamboo can grow in a wide variety of climates from cold mountains to hot jungles. Bamboo originated in China, but can now be found all over Asia and India, in Australia, Africa, and the Americas (Wikipedia). Bamboo prefers loose, loamy soil and usually their rhizomes are within the top few inches of soil. It can also vary in height from about 1 foot to over 100 feet (ABS). It is considered a grass (family Poaceae) and all bamboo are perennial evergreens. They have a hollow stem and don't undergo secondary growth, causing them to be the same width from base to top. Bamboo is one of the fastest growing plants on Earth, and can grow as much as 100 cm in a 24-hour period (Wiki). The species of bamboo *Phyllostachys nuda* found in Rutgers Gardens produces culms each season that grow to 30 feet or more in just weeks (Rutgers).

Most species of bamboo don't make seed very often, typically only one every 65-120 years (Wikipedia). The majority of bamboo culms that are seen in a spread are actually all from one genetic lineage. Bamboo spreads underground through rhizomes which connect one plant to another, where they can share water and nutrients from one stalk to the other. There are two types of bamboo plants: runners and clumpers. The running types, like the ones at Rutgers Gardens, send out underground runners which come from the parent plant. Clumping species spread much more slowly and don't expand more than a few inches a year. Clumpers are more frequently found in tropical regions while runners do best in temperate climates (ABS).

References:

"Bamboo." *Wikipedia, the Free Encyclopedia*. Web. 08 June 2011.

<<http://en.wikipedia.org/wiki/Bamboo>>.

"Bamboo Forest." *Rutgers Gardens*. Web. 08 June 2011. <<http://rutgersgardens.rutgers.edu/>>.

"General Bamboo Information." *American Bamboo Society - Official Website - ABS - BAMBOO - Bamboo.org*. Web. 06 June 2011. <<http://www.bamboo.org/index.php>>.

Methods for controlling bamboo (JDi)

Since bamboo spreads clonally through rhizomes underground and has a very rapid growth rate, actions must be taken to keep it under control. One of the most common and effective methods involves installing a tough plastic barrier about 30 inches deep to prevent the bamboo rhizomes from spreading. The soil next to the barrier should be tightly compacted so that the bamboo rhizome isn't encouraged to grow deeper. Bamboo typically grows in the top couple inches of soil if it is loose, but when a bamboo root hits an obstruction it can respond by growing downward underneath of the barrier (ABS).

Another solution which isn't as effective, but can be if maintained properly, is to make a mini moat around the area where the bamboo is growing. Making a shallow trench about 10-12 inches deep in the soil around the bamboo will allow you to see if any rhizomes are trying to cross the gap, at which point they can be cut off. This method requires more frequent checking of the trench for rhizomes, but is cheaper than a plastic barrier.

Bamboo doesn't work well with herbicides since the rhizome underground will still be alive, but another method to get rid of unwanted bamboo is to cut the shoots (culms) to the ground. Water and fertilize them so they will grow back, and when they do cut them again before they can make leaves for photosynthesis. This way, the plant will be using a lot of its energy to make shoots, but will not be able to perform photosynthesis and receive energy. This will cause the plant to

eventually be exhausted to death, it won't be able to send up new shoots, and the rhizomes will rot underground. If someone desires to plant a small amount of bamboo as an accent plant in their yard without it spreading, it can be contained in a pot which will be buried underground. The bottom of the pot should be cut out except for a one inch lip so that a circular screen can be placed in the bottom and will stay in place. Coarse screens, such as window screens, are best and two layers should be put in the bottom of the pot.

Some people control the spread of their bamboo plants by eating the shoots it produces. The shoots of most species are edible raw and all are edible cooked. This is only effective if the plants are harvested every year, triggering them to grow new shoots. Another effective way to control the spread of bamboo is through natural borders such as any body of water or a maintained landscape, such as a mowed lawn or plowed field. These types of disruptions don't allow the bamboo shoots to spread through creating a natural barrier which they can't cross.

Reference:

Jaquith, Ned. "Planting and Care of Bamboo." *American Bamboo Society - Official Website - ABS - BAMBOO - Bamboo.org*. Web. 06 June 2011. <<http://www.bamboo.org/index.php>>

Problems caused by invasive species such as bamboo (JDi)

The most common characteristics used to assess the invasiveness of a plant are its ecological impact, biological characteristic and dispersal ability, ecological amplitude and distribution, and difficulty of control (NYIS). In general, invasive species are detrimental to native species since they can often outcompete them when introduced out of their native range. This is because the natural biocontrol agents that normally keep their spread in check (for example a type of insect which completes its life cycle on the plant) are not present. By crowding out native species, invasive species lower the habitat value for native species of vertebrates and invertebrates which rely on the native plants for food and shelter. As an invasive species spreads and chokes out other native plant life, genetic diversity and therefore habitat functionality decreases. It is important to keep invasive species from spreading unchecked for the sake of animals, the environment, stopping the spread of diseases, pollination, genetic diversity, and saving the food supply produced by farmlands.

According to the New York Non-Native Plant Invasiveness Ranking Form, the species of bamboo at Rutgers Gardens *Phyllostachys nuda* has received a "moderate" invasiveness rank. It was noted that bamboo influences ecosystem processes to a minor degree, for example it sucks great amounts of nutrients from the soil which are consequently unable to be used by native plants. It also creates shade which prevents any other native seedlings from getting sunlight on the forest floor. Bamboo is considered to have a significant affect on natural community structure since it eliminates the herbaceous layer of the forest through shading. There is a significant reduction in the population size of native species in the community when bamboo is present, especially because of how densely it grows (NYIS).

There is a high chance of the spread of bamboo by indirect human actions, such as commercial sales. Since *Phyllostachys nuda* is one of the hardiest species of bamboo and isn't very costly, it is commonly bought by people to plant in their yards (NYIS). Also, bamboo could be spread through the transfer of soil with bamboo rhizomes still present within. Since bamboo has generalist habitat requirements, such as the ability to grow on nutrient poor soils, it often wins when competing against native plants. Its fast grow also allows it to grow up before other plants and shade them out. In New Jersey, it has the ability to grow in large dense stands which allow little to no other native or invasive plants to grow there, destroying otherwise healthy habitats.

Since the climate in its native range is very similar to that of the northeastern United States, it is able to flourish.

In every state in which it is present, management of bamboo causes major investment. The common treatment plan for removal includes the “cut stump” method, where the stalk is cut and herbicide is applied. Several treatments over a couple years are required before the species can be controlled.

Reference:

"*Phyllostachys* (genus) Non-Native Plant Invasiveness Ranking Form." *NY Invasive Species Home*. Web. 06 June 2011. <<http://nyis.info/Default.aspx>>.

Problem- Insects (JDa)

Bamboo can be the source of potential insect problems, whether it is bamboo that is growing in the United States already or bamboo that is being transported from Asia for decorative and industrial purposes. Bamboo being shipped across the sea can harbor invasive species of insects that can be damaging for the natural environments found in the United States. Once these species are released into the environment, it is hard to stop their spread, as they do not fit into a natural ecological niche here in the United States. Since the environment is not made to handle and naturally control the populations of invasive species, these invasive species of insects often push out and outcompete local species of insects and can often cause massive damage to native plant species that have no defense against an unfamiliar species from Asia.

Bamboo that grows in the United States can pose the problem of sheltering insects. Bamboo is a natural habitat for the invasive Asian Tiger Mosquito, as well as other native mosquito species. The Asian Tiger Mosquito often lay their eggs in small container environments, such as tires that have collected water, tree holes, and any other type of small container that might contain some water. Bamboo Shoots often have small openings at the top of the shoot that travel straight down into the inside of the stalk. These holes often collect water from rainfall and act as perfect container sites for mosquitoes to lay their eggs.

The problem with bamboo acting as a container site in which mosquitoes lay their eggs is that the bamboo acts as a type of protection for the development of the mosquito. The most common mosquito control mechanisms often include the broadcasting of pesticides across vast areas of land that have been deemed at risk for mosquitoes and their larvae. When the mosquitoes have flown down inside of the bamboo to lay their eggs, the broadcasted pesticides have difficulty reaching the inner breeding pools inside of the long bamboo shoots. This means that the pesticides' effectiveness has been reduced by the protective outer layer of the bamboo. Instead of destroying the mosquitoes, the pesticides instead only add harmful chemicals into the environment with little effect in pest control. Other beneficial species of insects and plants are instead affected by the chemicals released more so than the mosquitoes.

Reference: "Larval Habitats of Mosquitoes." Rutgers Center for Vector Biology. Web. 06 June 2011. <<http://www.rci.rutgers.edu/~insects/habitat.htm>>.

Bamboo- History of Arrival (JDa)

Bamboo is native to China and was first introduced to the United States around 1882. It had been cultivated in Japan for centuries. The reason Bamboo was brought to this country was for ornamental uses and because people found it to be aesthetically pleasing.

Reference: "Southeast Exotic Pest Plant Council Invasive Plant Manual: Golden Bamboo." Southeast Exotic Pest Plant Council. Web. 15 June 2011. <<http://www.se-eppc.org/manual/PHAU1.html>>.

Distribution in the United States (JDa)

According to the USDA Forest Service, *Phyllostachys aurea*, also known as Golden bamboo, has been found in the states of Florida, Georgia, South Carolina, North Carolina, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Texas, Virginia, California, Oregon, and Maryland. It has been reported to be invasive in the states of Georgia, Maryland, Virginia, West Virginia, and Pennsylvania. The state of New Jersey is also at risk. As the Golden Bamboo species poses a threat of invasiveness in multiple states surrounding New Jersey, the bamboo will become an even greater threat as the species continues to adapt to the colder environmental factors. The climate of New Jersey is not much different from the climate in either Pennsylvania or Maryland.

Reference: "Golden Bamboo." USDA Forest Service. Web. 15 June 2011. <http://na.fs.fed.us/fhp/invasive_plants/weeds/golden-bamboo.pdf>.

Golden bamboo is only one species of bamboo, as all are invasive in the United States. Other species grow better in the cold climate of New Jersey and pose an even greater risk.

Phyllostachys nuda is one of the most difficult species of bamboo to control due to its hardy nature, growing in parts of the Southwest, Southeast, northwest, northeast, and deserts.

Reference: "All About Bamboo- Regional Recommendations." Bamboo Sourcery. Web. 15 June 2011. <http://bamboosourcery.com/cat_frame.cfm?id=48>.

Potential Solutions (JDa)

- Raising Public Awareness: In order to combat the rampant spread of bamboo, people have to be made aware that the potential for such a problem does in fact exist. In order to do so, campaigns of some sort could provide the answer. Awareness amongst the general community must be raised to a level where people begin to view bamboo as a potential hazard for their house or for public parks, rather than viewing it as an ornament that in no way can harm the environment. Awareness groups could be one potential way to get the information to the people in a community.

Groups in the area could work to inform local residents, either by going from house to house in residential areas that exhibit a tendency to display bamboo as a decorative item in their yards, or by setting up large events. If awareness groups were to set up an event to help cull back the growth of bamboo in a public park or area, they could sell the event based on the idea that participants would be able to either take some bamboo shoots back with them to use for ornamental purposes, or by promising to teach people how to make a certain type of craft or project with the bamboo that has been cut back.

Local residents could also be informed by activist groups through a means such as flyer distribution in areas at risk to the spread of bamboo in the natural environment. Areas at risk would include rural and suburban areas more so than urban and heavily populated areas, as there would be less space for bamboo to spread in those areas. The main threat of bamboo would be its spread into a local forest from someone's backyard. Single-flyer distribution would make sure that all residents of a community would be made aware of the problem, as long as everyone took the time to read what was on the information flyer distributed. In order to make certain of this, the flyer would have to be able to catch someone's eye easily so that it was not immediately discarded.

Flyers could include information describing why bamboo is a problem and ways to control bamboo in residential areas. It would be wise to list the problems caused by bamboo based on how much of an effect it could potentially have on causing property damage in order to give residents a motivation for taking an interest. Control methods would have to be easy and cheap, so that residents would have some chance to actually perform the control. Cost or prolonged work would not appeal to residents and would make them less likely to help in controlling the invasive species.

- **Legislation:** Legislation would be a way to add potential money to fund control project for bamboo. If state funding could be diverted to programs that focused on controlling the spread of bamboo as an invasive species, the ability to take action would become much easier. Current legislation exists to deal with other potentially harmful invasive species, but little legislation exists currently to deal with bamboo specifically. In order to create more traction for the issue, groups might be recommended in order to have a focused effort writing legislators all at once to bring attention to the issue, in addition to calling legislators to express concerns and the potential problems associated with bamboo. More focus might be given to the problem if potential uses for the bamboo could be proposed, such as the use of the bamboo collected for building projects in public parks to create things such as bamboo bridges to look aesthetically pleasing. The difficulty in gaining legislative backing is that the legislatures must be convinced that the money used to fund a bamboo program would not be better used elsewhere, a monumental task in a time of financial unease.

- **Building Projects:** Bamboo is an important and sturdy building material for all sorts of products. This is what can separate bamboo from other invasive species, in that when bamboo is cut down and controlled, it can actually serve a use to people if used correctly. A volunteer group, or even a Boy scout or Girl scout troop, could find bamboo useful once it has been cut down. Below are some uses for bamboo:

1. **Bridges:** Bridges are a useful application for bamboo as they can serve a function of transportation over certain areas such as streams, small rivers, or muddy and uneven terrain. A few pieces of bamboo will support a great deal of weight and tend to last for long periods of time.
2. **Fences:** Fences are another useful application for bamboo. Bamboo fences can be used to keep people out of certain areas, such as keeping people from walking over grass in public parks. Bamboo fences are pleasing to the eye and may add more to the atmosphere in a public place. For instance, it may look better to surround a public tool shed or port-o-potty's with bamboo fences rather than letting them remain as they are. The bamboo fences are strong and are generally safe, with none of the sharp metal edges that metal fences sometimes have. They could be preferable to surround dog play areas or children playgrounds.
3. **Shelter:** Bamboo houses or canopies can offer shelter from the rain if built effectively. Bamboo can also be fastened into tepees. Tepees can be used for shelter, but they are also occasionally used as a surface on which to grow other vegetation, such as hanging grape vines. Bamboo shoots can be used to build gazebos, which would benefit any public park and add to the ambience of any area.
4. **Food:** Bamboo is used to cook with in many Asian kitchens. It is a healthy food choice and can be used in numerous dishes when cut fresh.

The Service Project (JDi)

For our service project, we decided to try to affect a local stand of bamboo which had been allowed to get quite large right on our own campus. Rutgers Gardens is located at 112 Ryders Lane in New Brunswick and is owned by Rutgers University. It is a site for many horticulture events and education to the public on gardening techniques and more. On the Rutgers Gardens website, they've stated that their mission is: "To promote and provide accurate information about the art of horticulture with an emphasis upon the relationship between plants, human health and nutrition in the designed, as well as in the natural landscape" (Rutgers Gardens). We feel that this should include informing the public about what is and is not a natural habitat for New Jersey. One of the featured collections at Rutgers Gardens is a Bamboo Forest which was originally intended to be a winter shelter for local honeybees in the 1950's (Rutgers Gardens).

Phyllostachys nuda is a hardy and aggressive species which now takes up a large area of land in the gardens, with its growth controlled only by a mowed field to its one side and a stream on the other. Bamboo is very difficult and expensive to remove, and also has cultural value as a beautiful and unique habitat. For these reasons, we understand that the task of removing the bamboo would not be practical and probably not desirable. We would like to encourage Rutgers Gardens to place a sign at the entrance to the Bamboo Forest informing visitors about what bamboo does when planted outside of its natural range and discouraging them from planting bamboo without controlling it in their own yards.

Bamboo is considered a grass, and therefore grows extremely rapidly. Also, bamboo shoots spread by springing up from underground rhizomes which keep growing until they hit an obstruction or barrier of some sort. When left unchecked, bamboo can take over the habitat of native plants. One way this is achieved is through nutrient and resource use which takes away from those able to be utilized by the native plants. The fast growth of bamboo allows it to out-compete native seedlings which don't grow as quickly through shading. In New Jersey, bamboo has the ability to create dense stands which allow for little to no native growth. The underground rhizomes which bamboo grows from make it challenging and expensive to remove. Bamboo is also a perfect home and breeding area for mosquitoes which are vectors for disease.

We decided to affect this issue by reaching out to Rutgers Gardens through calling the phone number provided on their website and scheduling an appointment to meet with the appropriate staff member there. We wanted to meet with someone who we could propose our idea to and show the text that we created for a sign and receive some feedback on whether or not they would like to incorporate it. They requested a written email of what we are working on and what we would like to see done, a copy of which is included below. We received a response from a man named Bruce Crawford who is the Director at Rutgers Gardens. We met with him on Wednesday, June 22nd at the Gardens and he told us that they do wish to place a more formalized sign at the entrance to the bamboo. We presented him our ideas based on the research we've completed in hopes of contributing some of them to the sign they will install.

A second service project which we completed was to add a blog post onto the Haycock Community Wildlife Habitat blog created by Janice Foo and Lisa Giordano. The issue was posted as was discussed in our Classipedia, and our summary and editorials were added as well. This serves as another source of education to the public about bamboo as an invasive species. It is important for the public to know that bamboo should not be planted outside of its native range as an ornamental because of the damaging effects it can have on native habitats.

Appendices

Email to Rutgers Gardens (JDi)

Thursday, June 16, 2011

To Whom It May Concern:

My name is Janine Disanti and I am a student at Rutgers University taking a summer class called "Ethics in Science." Over the course of the class, we have identified an issue in society that we would like to address and to create a service project to affect the issue. My partner, John Daub, and I are both Biological Sciences majors and have learned about invasive species in our courses at Rutgers and find it to be an interesting subject in which there is a great deal to be done.

Therefore, we chose to make it the focus of our project and our professor suggested that we research bamboo as an invasive since that was a species that neither of us knew much about. Thus far in the course, we have completed quite a bit of research on bamboo as an invasive species in New Jersey and the negative effects it has on native habitats when planted without a control method.

For our service project, we remembered that there is a bamboo forest in Rutgers Gardens and thought we could affect the issue starting right in New Brunswick. Bamboo is very difficult and expensive to remove, and also has cultural value as a beautiful and unique habitat. For these reasons, we understand that the task of removing the bamboo would not be practical and probably not desirable. We would like to encourage Rutgers Gardens to place a sign at the entrance to the Bamboo Forest informing visitors about what bamboo does when planted outside of its natural range and discouraging them from planting bamboo without controlling it in their own yards.

Since the course is an accelerated summer course, we are very close to the end of the semester already with next Thursday, June 23rd being our last class. We would like to meet with someone at Rutgers Gardens before then who we can propose our idea to and show the text that we created for a potential sign, and receive some feedback on whether or not they would like to incorporate it. I can be reached at 609-617-1180 or at jdisanti@eden.rutgers.edu. Thank you in advance for your time.

Janine Disanti John Daub

Meeting with the Director of Rutgers Gardens (JDa)

The director of Rutgers Gardens met with our group to discuss the possibility of putting up a sign warning visitors to the Bamboo Forest that bamboo is an invasive species that should not be planted without proper control measures. We proposed several potential ways to word the sign, including:

- Did you know...?

Bamboo is originally from Asia and has become an invasive species in the United States. Many species of bamboo spread through underground runners called "rhizomes" and bamboo is one of the fastest growing plants on Earth.

Bamboo displaces native plant life through its ability to grow quickly and densely, destroying otherwise healthy and functional habitats.

Running species of bamboo must be contained using a control mechanism to prevent them from spreading uncontrolled and taking over.

Please do not plant bamboo in your own yard without proper control techniques

- **WARNING:** Bamboo is an invasive species. PLEASE do not plant in your own yard or garden without proper control techniques.

In the two examples included, we experimented with including fun facts on the sign as well as just getting straight to the point that we wanted to get across. We were able to communicate our goals to the Director, stating that our hopes were:

1. To inform visitors about what bamboo does when planted outside of its natural range.
2. To discourage visitors from planting bamboo without controlling it in their own yards.

After stating our case, the director informed us that he was behind the idea of getting information to the public. Plans had been in place to place signs in key locations in the Rutgers Gardens to give visitors more information on sites such as the bamboo forest and the log cabin. The signs that they had been planning to use would include the option of taking a photo of the sign with a Smartphone and being immediately directed to a website containing information on that particular location. For the bamboo forest, he assured me that they would take the invasiveness of the plant into consideration and would also include information for visitors on techniques to control the spread of bamboo, such as using plastic barriers and trenches. The importance of our stance was not lost during the conversation, and we were able to bring more attention to the issue. The type of sign that Rutgers Gardens is looking to put up will cost somewhere around \$2,500 dollars. The plan in Rutgers Gardens is to finish placing another sign that they had received grant money for and then turn their focus to the bamboo forest. The director assured me that the sign would be going up in the next couple of years and that the Rutgers Gardens would not forget to include information on bamboo as an invasive species.

Editorials

Thoughts on the Invasiveness of Bamboo

By Janine Disanti

Invasive species cause many problems to native communities and pose a threat to healthy, functioning ecosystems. Whenever a species is introduced outside of its native range, it can take over because of the absence of its natural predators which function to keep the species in check. By crowding out native species, invasive species lower the habitat value for native species of vertebrates and invertebrates which rely on the native plants for food and shelter. As an invasive species spreads and chokes out other native plant life, genetic diversity and therefore habitat functionality decreases. It is important to keep invasive species from spreading unchecked for the sake of animals, the environment, stopping the spread of diseases, pollination, genetic diversity, and saving the food supply produced by farmlands.

Bamboo spreads through underground runners called rhizomes instead of making seed, allowing it to take over a relatively large area of land in a short period of time. Its stalks also grow incredibly quickly and densely which creates shade that prevents any other native seedlings from getting sunlight on the forest floor. For this reason, a significant reduction in the population size of native species in the community is noted when bamboo is present. Management of bamboo causes major investment when it is allowed to spread uncontrolled. The common treatment plan for removal includes the “cut stump” method, where the stalk is cut and herbicide is applied. Several treatments over a couple years are required before the species can be controlled. Bamboo is also known to attract insects such as mosquitoes, which lay their eggs in the water which collects inside the stalks. By controlling the spread of bamboo, the diseases that are spread by these insects can also be controlled.

Although bamboo is a very interesting and beautiful plant, homeowners should take precautions when planting it in their own yards in order to preserve the functionality of our native habitats. One of the most effective ways to control bamboo from spreading is to install a tough plastic barrier about 30 inches deep to prevent the bamboo rhizomes from spreading. The soil next to the barrier should be tightly compacted so that the bamboo rhizome isn't encouraged to grow deeper. Bamboo typically grows in the top couple inches of soil if it is loose, but when a bamboo root hits an obstruction it can respond by growing downward underneath of the barrier. Also, if someone desires to plant a small amount of bamboo as an accent plant in their yard without it spreading, it can be contained in a pot which will be buried underground. The bottom of the pot should be cut out except for a one inch lip so that a circular screen can be placed in the bottom and will stay in place. Coarse screens, such as window screens, are best and two layers should be put in the bottom of the pot. By controlling the spread of bamboo, we can become one step closer to restoring local habitats to healthy and functioning ecosystems.

Bamboo: Decorative or Destructive?

By John Daub

Bamboo can be found in many yards and gardens, acting as a decoration to make everything around it have a bit more exotic flair. People find bamboo to be aesthetically pleasing, but it is this attraction that shields the reality of the situation from the minds of those that plant it. The truth of the matter is that bamboo does not belong here in the United States, and as much as people would like to convince themselves otherwise, planting it in one's backyard poses risks. Bamboo is an invasive species in this country, brought over from its native lands of China around 1882 with the hopes of adding decoration to people's homes in the U.S. Invasive species pose a major ecological risk, growing uncontrolled in non-natural environments and out-competing native species.

When planted in one's own backyard, bamboo can grow as fast as one hundred centimeters per hour, growing out of control in a matter of weeks. Bamboo spreads clonally through rhizomes that spread underneath the ground's surface, allowing for bamboo to spread despite how much cutting is done to try and prevent it. As the bamboo spreads, less and less grass, flowers, or any other native species of plants can grow in the area that is rapidly taken over, posing a headache for gardeners and a horrific situation for ecologists and environmental control agencies. For those that do not have the time to cull back the growth of bamboo, their gardens are lost before their eyes.

Though the planting of bamboo in the United States is not recommended, methods to control bamboo do exist for those who insist to use it as a decorative item for their yards. The continuous cutting of bamboo down to its roots will help the problem, but it is inefficient as the bamboo can survive and continue to grow if it is not constantly cut before it is allowed to produce leaves. This type of care requires a lot of attention that some might not be willing to give. One of the most efficient ways to control the spread of bamboo is by installing a tough plastic barrier about thirty inches deep around the bamboo to prevent the spread of the rhizomes. This will effectively limit the bamboo growth to a set area and will save gardens from rampant, uncontrolled growth.