

Top Five Myths About Pine Beetles

- 1- Beetles are about an inch long.
- 2- Beetles can be seen crawling around or flying around indoors.
- 3- If a tree is cut down just before the beetles fly, it will cause them to emerge.
- 4- If trees are preventatively sprayed every other year, they will probably be protected.
- 5- The beetles fly around the end of June each year.

Top Five Myths Corrected

- 1- Beetles are actually about the size of a grain of rice.
- 2- Beetles only fly once a year and you will never see them in your house, unless you've brought in firewood with live beetles. Even then, it is unlikely.
- 3- Beetles will not react to cutting a tree down; they will emerge when mature and ready.
- 4- "Astro" insecticide used for pine beetle spraying lasts about four months on the tree bark.
- 5- Pine beetles fly around the beginning of August with some pioneer beetles emerging in late July.



Mountain Pine Beetle in pupae stage.

Colorado's Bark Beetle Outbreak Is the front Range at Risk?

by Mike Goldblatt

Wherever I went this past summer, I often found myself having the same conversation. It usually started with a comment like this: "Hey Mike, I was just up in the mountains. The beetle damage up there is unbelievable. Is it coming this way?" This is difficult to answer with simply a yes or no. A beetle outbreak of this magnitude is unprecedented in Colorado's recorded history. The fact that we have suppressed forest fires in the state for over a hundred years has created a crowded and unhealthy forest throughout Colorado. The generally warm and droughty conditions over the past few decades (some, myself included, would call it climate change) have exacerbated the situation, creating the alarming outbreak we are witnessing in the high country. Therefore, predictions, already difficult in this game, become almost impossible. Having said that, one can make observations and consider some probable scenarios.

When you drive west on I-70, or northwest on U.S. 40, you can see bark beetle infestations working their way towards Evergreen. Just a few years ago, this was not occurring. Specifically, there are big patches of infested trees



Mountain Pine Beetle infestation.

from the Eisenhower Tunnel going east to Bakerville, Silver Plume, Georgetown, Empire, Idaho Springs, and recently Floyd Hill and Soda Creek. Going North, one can observe beetle infestations working their way towards Jefferson County from Grand County and Gilpin County. Some of these patches are IPS beetle and some are Mountain Pine Beetle (MPB). It is the MPB that is devastating most areas of Colorado, but IPS does its fair share of damage as well.

The big question in my mind is this: Will the huge populations of MPB, which currently populate the Lodgepole Pine stands in the high country, make the move into our stands of Ponderosa Pines in the Front Range area? Recent signs indicate this may be the case, but it has not been determined yet. If this does occur, we could have a major outbreak on our hands here in Evergreen.

What can you, the landowner, do in advance of this possible outbreak? There are a couple of things you can do; thin your crowded forests to promote healthy trees that are resistant to beetles and preventatively spray your high value

In addition to tree care, Lam Tree also does noxious weed control. Beginning with this issue of our newsletter, we will help you identify some of the more prevalent weeds in our area.

Dalmation Toadflax
(*Linarian dalmatica*)

Dalmation toadflax is a member of the Figwort family. It was introduced



as an ornamental from Europe, and is now rapidly invading dry rangeland from 5,000 to 8,000 feet. It is a creeping perennial that closely resembles yellow toadflax. The leaves are waxy, heart-shaped, and clasp the stem. The stems are from 2 to 4 feet tall. The flowers are snapdragon-shaped, bright yellow, with orange centers.

Dalmation toadflax is especially well adapted to arid sites and can spread rapidly once established. Because of its deep, extensive root system, waxy leaf, and heavy seed production, this plant is difficult to manage.

Dalmation toadflax is often not recognized as a noxious weed by landowners. If you see this plant or any other noxious weed, give us a call, we can help! 🌲

Heritage Grove Project

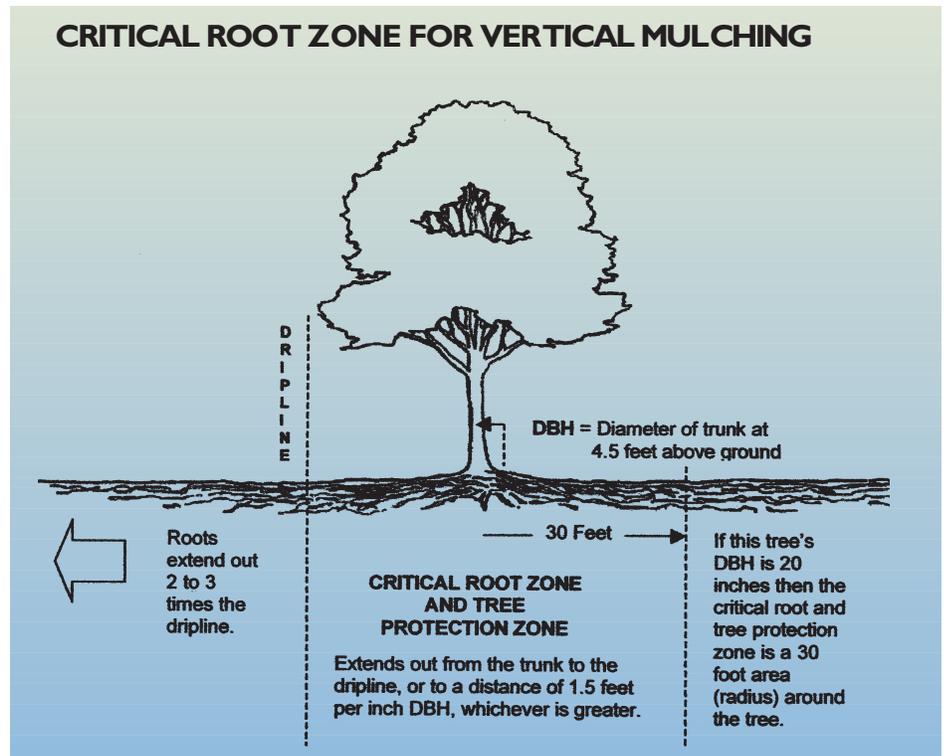
Heritage Grove is a grove of ancient ponderosa pines near Meadow Drive in Evergreen. The grove is part of the Hiwan Homestead, which was settled by a civil war widow Mary Neosho Williams in the 1890's. Six generations of notable families lived in the rustic mountain lodge located in the grove, until 1974 when it was developed as a museum by Jefferson County Open Space. Some of the ancient ponderosa pines in Heritage Grove date back to the Revolutionary War era and earlier. It came to our attention that the trees in the grove were suffering from soil compaction from the many art festivals and similar events that are held there each year. This is a very common problem for trees that receive a lot of foot traffic over their root zones. Additionally, Ips Beetle and Mountain Pine Beetle have attacked one of the older trees in the grove. This is undoubtedly related to the soil compaction.

Over the years Lam Tree has cared for these trees by trimming them as well as protecting them from Mountain Pine Beetle. In conjunction with our 30th anniversary, Lam Tree has taken on a project to attempt to mitigate the compaction problem in Heritage Grove. We are donating our time and materials to this cause. We plan to place educational signs in the grove so the public can learn about the project as well as the history of the magnificent ponderosa pines in this area.

By using a process called "vertical mulching" we will attempt to reduce the soil compaction. Vertical mulching consists of drilling two-inch diameter holes in a grid pattern throughout the root zones and then backfilling the holes with pea gravel. These aeration holes go about 8-12 inches below the surface, which is where most of the roots are. This allows more oxygen, water and other nutrients to be taken in by the tree roots. At Lam Tree we have been using this process for the past fifteen years with great success. We may employ other methods to help the trees, such as placing a layer of mulch above the root zones. Stop by Heritage Grove sometime to take a look at these magnificent pine trees. Hopefully they will be in excellent health. 🌲



We start training our kids young at Lam Tree. Pictured is Shilos' son Shawn, who just turned two. He appears anxious to start work at Lam, but OSHA insists we wait a few years.



New Hardiness Zone Map Reflects Warmer Climate

Much of the United States has been warmer in recent years, and that affects which trees are right for planting.

Based on the latest comprehensive weather station data, The National Arbor Day Foundation has released a arborday.org hardiness zone map that separates the country into ten different temperature zones to help people select the right trees to plant where they live.

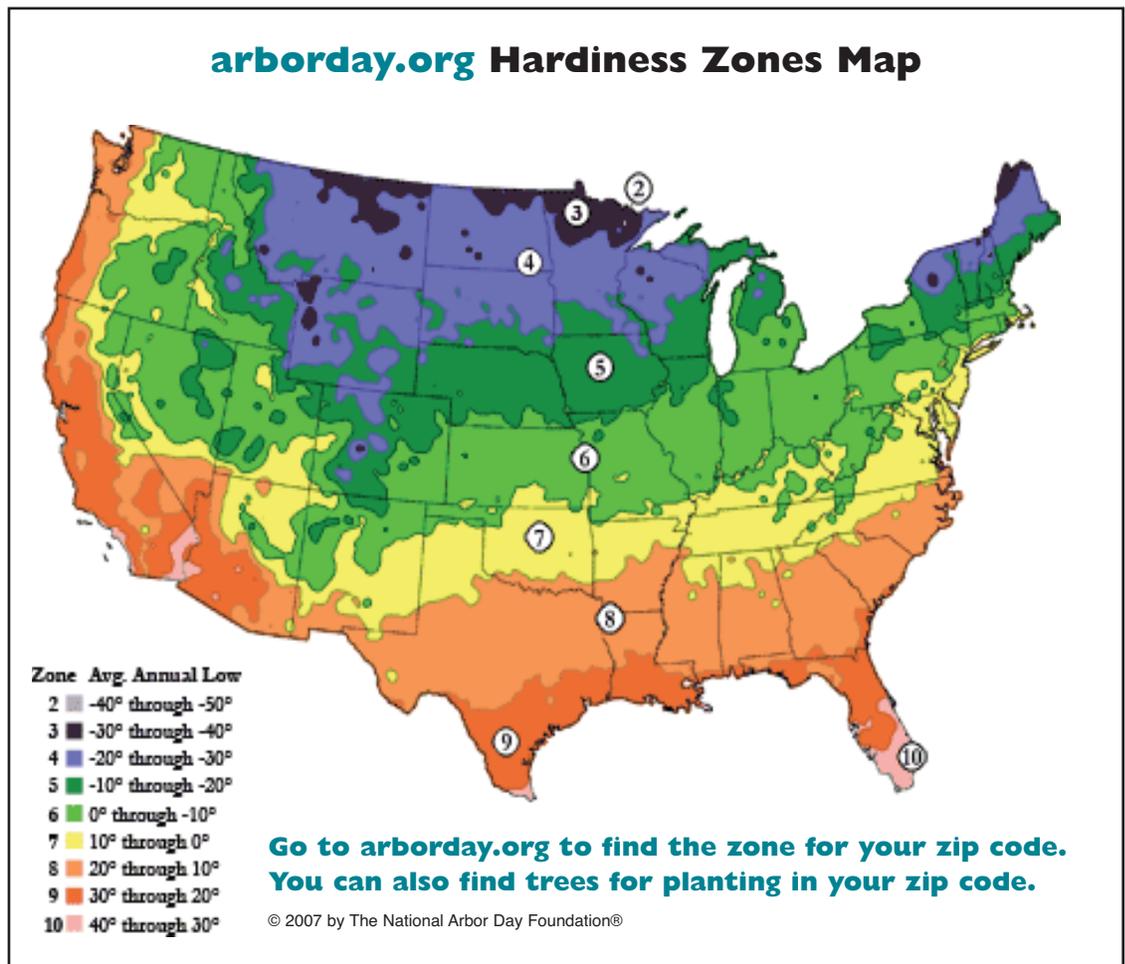
The new map reflects that many areas have become warmer since 1990 when the last USDA hardiness zone map was published. Significant portions of many states have shifted at least one full hardiness zone. Much of Illinois, Indiana, and Ohio, for example, have shifted from zone 5 to a warmer zone 6. Some areas around the country have even warmed two full zones.

In response to requests for up-to-date information, The National Arbor Day Foundation developed the new zones based on the most recent 15 years' data available from the National Oceanic and Atmospheric Administration's 5,000 national Climatic Data Center cooperative stations across the United States. Hardiness zones are based on average annual low temperatures using 10-degree increments. For example, the average low temperature in zone 3 is -40°F to -30°F, while the average low temperature in zone 10 is 30°F to 40°F.

Tree planters across the nation can go to www.arborday.org, click on the Hardiness Zone link, and enter their ZIP code to determine their hardiness zone.

The new arborday.org hardiness zone map is consistent with the consensus of climate scientists that global warming is under way. Tree planting is among the positive actions that people can take to reverse the trend.

Trees counteract global warming in multiple ways. Atmospheric carbon dioxide is a leading contributor to



global warming, and as trees grow, they remove CO₂ from the atmosphere, storing the carbon and releasing oxygen. A single tree can remove more than a ton of CO₂ over its lifetime.

Also, shade provided by trees reduces summer air conditioning needs. According to the USDA, the cooling effect of a healthy tree is equal to ten room-size air-conditioners operating 20 hours a day.

Trees reduce the "heat-island" effect in urban areas, where summer temperatures are generally warmer than the surrounding countryside. According to the US Forest Service, 50 million strategically placed shade trees could eliminate the need for seven 100-megawatt power plants.

Additionally, trees around homes and in cities slow cold winter winds, reducing the need for winter heating. This relief on fuel consumption for heating and cooling helps reduce CO₂ emissions from burning fossil fuels.

Detailed information about which trees are best for planting throughout the country, the value of trees, and the latest warmer hardiness zones can be found at www.arborday.org. 🌲

2007 Lam Tree Scholarship Awarded

We are proud to announce that the 2007 Lam Tree Scholarship has been awarded to Carissa London of Conifer high school. Carissa is attending Arizona State University in Tempe Arizona, where she is majoring in landscape architecture. The Lam Tree Scholarship is awarded annually to a deserving high school senior from the Evergreen/Conifer area. The scholarship is geared toward a student who is pursuing a career in the outdoor sciences. 🌲



Colorado's Bark Beetle Outbreak *(continued from pg. 1)*

trees so that the beetle does not gain a foothold on your property. Many landowners in the foothills have sprayed their trees preventatively every year since the 1970's. These properties have remained mostly free of pine beetle. However, with a possible major outbreak looming, thinning crowded forests in advance of the outbreak is critical. We need to be proactive and not reactive as we wait to see what the future holds. It is hard to say what the future will bring, but keeping our forests healthy is our best bet. One advantage we have in the Front Range foothills is that our forest is more diverse, as opposed to the pure stands of same-age Lodgepole Pines in the high country. We have a mixture of Ponderosa Pines, Douglas Firs, with some Colorado Spruce and other species mixed in.

Aside from the question of whether the beetle will spread to Jefferson County, I am often asked about the fire danger the dead trees have created and will continue to create as the beetle spreads. There are conflicting opinions on this subject from forestry experts. Some believe that the danger of an historic fire in Colorado is increased dramatically by the beetle outbreak because of the dryness of the dead trees. Other experts argue that coniferous forests are inherently combustible even as live trees and the danger is not much different. Most however, agree that the first few years after a stand of conifer trees dies represents the greatest danger period. Once the dead needles fall from the trees, the amount of combustible material is greatly reduced.

In the 1950's and again in the 1970's, the Front Range of Colorado experienced large pine beetle outbreaks. Aside from a moderate outbreak around the turn of this century, there hasn't been a huge outbreak since, so this area is overdue. Because MPB populations are migratory in search of suitable hosts, there is a cause for concern that the beetles will run out of trees to infest in the higher elevations and work their way towards the Evergreen, Conifer, Lookout Mountain areas. If we create healthier forests now, a massive pine beetle outbreak, if and when it comes, may be more manageable. 🌲

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