

THE CITY TIMES

Est. 1891

Tree City USA since 1992

International Society of
Arboriculture

Special Forestry Edition

Tuesday, October 6, 2020

Price 2¢

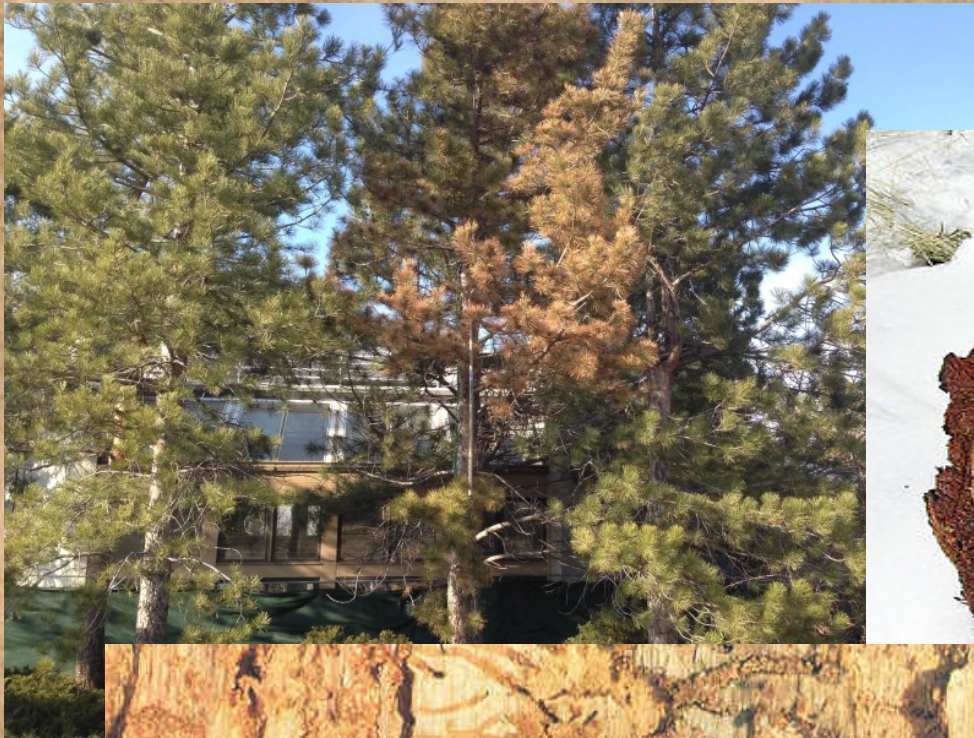
Invasive Pest Detected In Local Pine Trees



Mountain Pine Beetle Found!



- City Forestry Crew identified and removed 15 trees from McManamen Park in June, as well as, treated an additional 14 Austrian Pines
- City Arborist identified pest at private residence in August and assisted with disposal and treatment options.
- County Parks has removed 5-6 trees at Camplex Park and treated others the past 2 years.
- County Arborist also identified and assisted a private residence in Nicholson Little Farms.



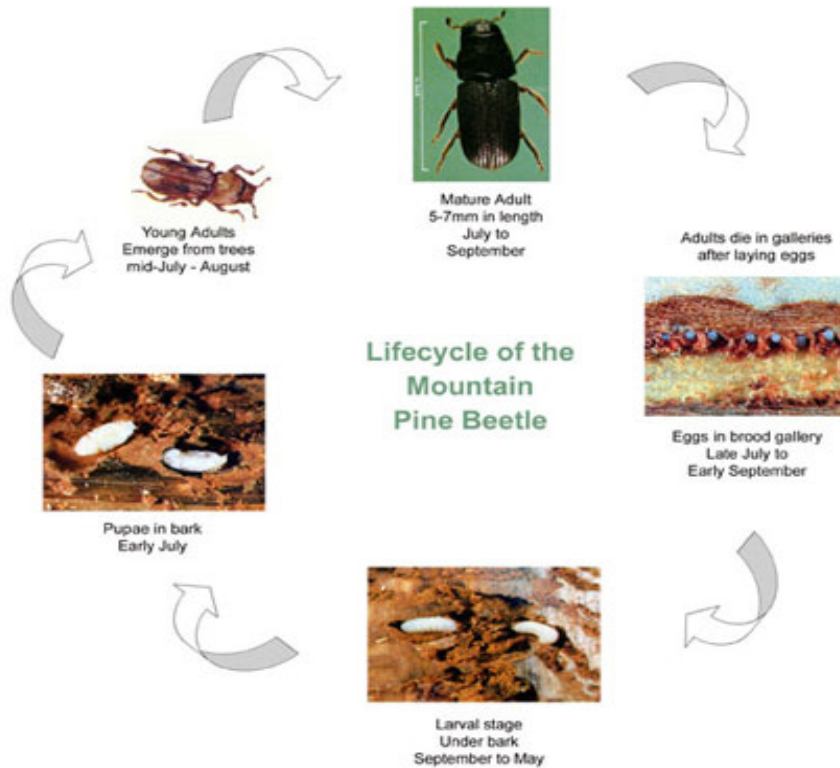
#1 Fast changing needles that start yellowish brown changing to rust color

#2 Blue stain in the heartwood

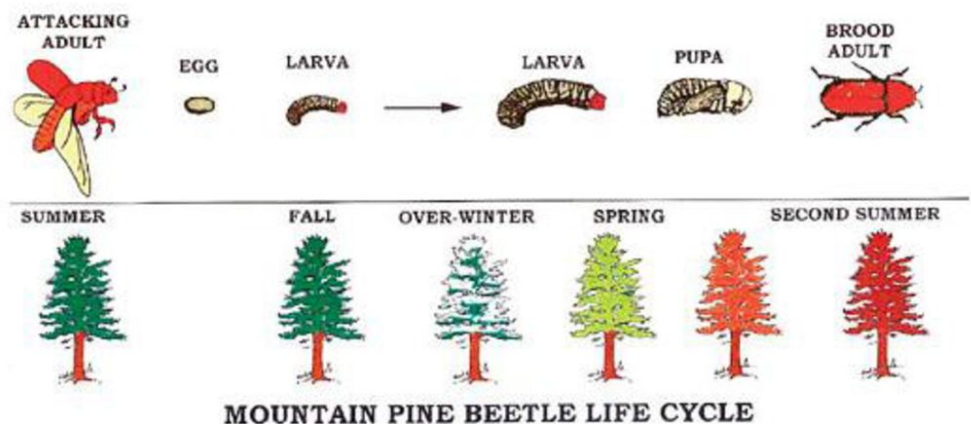
#3 Pinholes of beetle entry/exit, galleries for egg laying and larvae.

Mountain Pine Beetle Facts:

- Mountain pine beetles (*Dendroctonus ponderosae*) attack only Pine trees (*Pinus* family). In Gillette: Austrian, Scotch and Ponderosa have the potential to be affected. We also have other varieties such as Bristlecone, Mugo and Pinyon Pine trees but they are generally not attacked.
- MPB is native to the Black Hills and outbreaks have resulted in millions of trees being lost in forests across western North America.
- Usually attack trees larger than 10 inches in DBH (diameter at breast height) but will attack trees down to 4 inches diameter. Also attack the main stem of the tree at the 4 inch diameter point.
- Typically attack stressed and neglected Pines but will move to healthy trees.
- Enter tree and tunnel between bark and heartwood to lay their eggs then fly to other trees. The eggs or larvae over winter and bore through the tree and move to other trees the following spring.
- Area damaged between bark and heartwood is the cambium layer; which, is responsible for the tree transporting nutrients throughout the tree. When the cambium layer is damaged the process of nutrient transportation stops causing senescence of the tree - in other words death.
- Signs include exit holes, popcorn shaped masses of sap called “pitch tubes” where the tree is trying to prevent the beetle from tunneling, and boring dust or “frass” in the crevices of the bark.
- Once the damage is noticeable, it is too late and the beetle and its newly hatched larvae have begun boring through the cambium layer and moved to nearby trees.
- They typically only fly 300 feet; possibly further, depending on wind.
- It would take several days of consistently -30 degrees celsius for Mother Nature to naturally and effectively kill off the beetle and its larvae.



Bark Beetle Life Cycle and Effect on Forest Health



Edit Smart Editor

Select a template to create features

City Trees

Deciduous Evergreen Shrub Deciduous Shrub Evergreen Unidentified

Tree Query

Tasks

Results

City Trees

Query criteria

Species

Species Filter

City Trees

Species is

City Tree Inventory

Apply

Tree Count

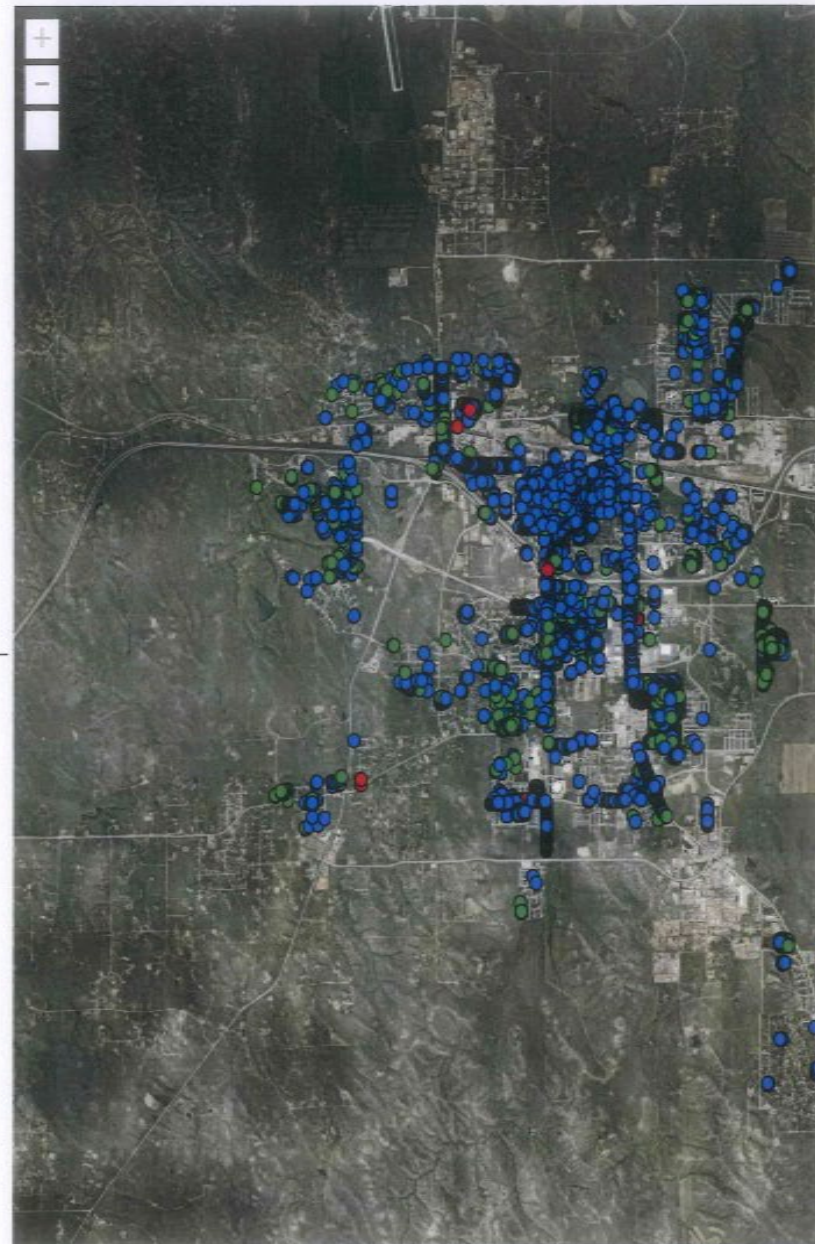
Tree Value

Number of Trees in View

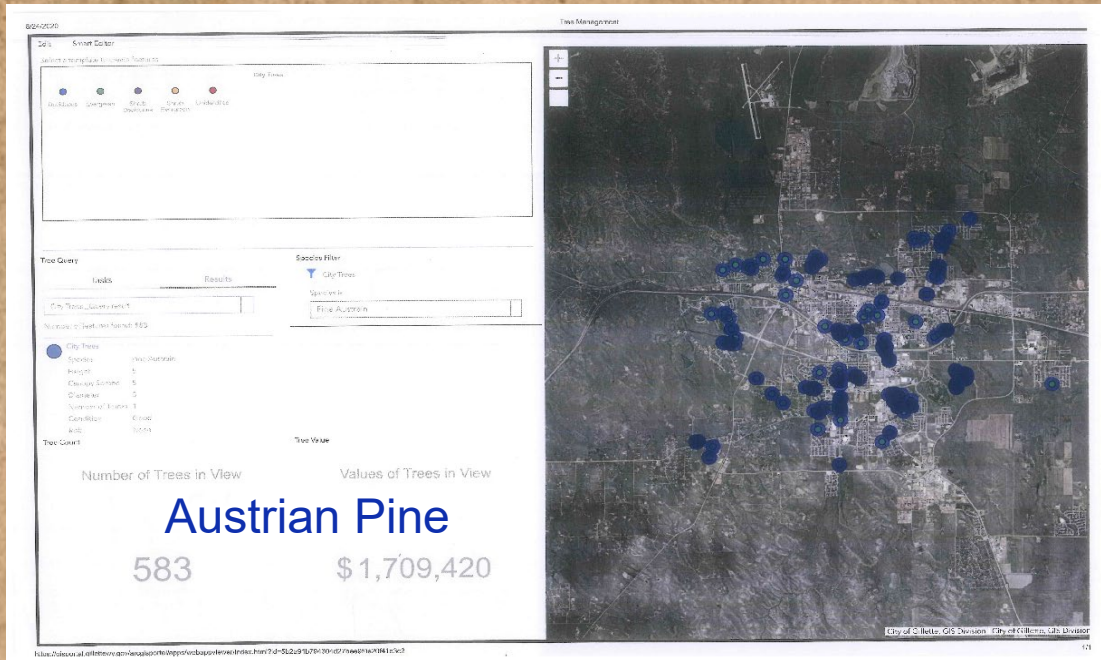
Values of Trees in View

8,269

\$28,839,440



Pine Populations in Gillette



What's at Risk?

Total City Trees	8,269
Value of Total City Trees	\$28,839,440
Total Pine	1,221
Percentage of Pine	14.76%
Value of Pine	\$3,412,230
Total Ash	572
Percentage of Ash	6.91%
Value of Ash	\$4,024,770
Total, Percentage & Value of Homeowner Trees	?????

Colorado's trees and forests need your help. You can prevent the accidental spread of tree-killing insects and diseases — like the emerald ash borer and mountain pine beetle — by simply buying or gathering local firewood near where you'll burn it.

BUY IT WHERE YOU BURN IT.

How to Help:

- Leave firewood at home — buy local firewood at or near your destination; collect firewood on site only when permitted.
- Buy or collect only what you'll need, and use it all up by the end of your stay.
- If you have already moved firewood use it immediately. Do not take it home with you, and do not leave excess firewood on site.



**DON'T MOVE
FIREWOOD.org**



How Did It Get Here?

It was most likely transported here in firewood.



Management Plan

Educate

- ❖ Public
- ❖ Local Contractors
- ❖ Posters/yard signs, flyers
- ❖ Social Media, GPA & local news outlets
- ❖ State Forestry Support

Identify

- ❖ Local Arborists
- ❖ Local Contractors

Isolate & Dispose

- ❖ Yardwaste
- ❖ County Landfill
- ❖ Local Contractors
- ❖ Chipping
- ❖ Cutting into 2 foot lengths and covering
- ❖ Debarking
- ❖ Burning slash piles

Treat

- ❖ Pines near infected trees
- ❖ Right product, Right timing
- ❖ Local Contractors

Beware of Imposters – The Other Bark Beetles

- Been in the area for a few years
- More manageable. Slower to move through a tree and spraying is more effective.

Ips Engraver Beetle - Pines



Spruce Ips Beetle - Spruce



Figure 6 - Spruce beetle larval galleries.

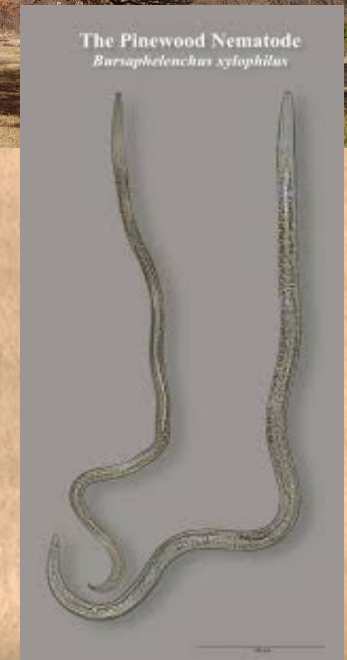


Confused Yet?

White Pine Weevil



Pine Wilt Nematode



Other Invasive Pests on the Way

Japanese Beetle



Emerald Ash Borer

