Badger News | A Publication of the Badger Bonsai Society |

October 2012

**NEXT MEETING DATE: October 11, 2012** 

Olbrich Botanical Gardens 3330 Atwood Ave. Madison, WI

MEETING TIME 6:30-8 pm

**MEETING AGENDA:** Preparing for winter, as usual.

#### **CLUB OFFICERS:**

President	Matthew
Treasurer	John
Librarian	Greg
Newsletter/Website	Devon
Refreshments	Elaine
Past President	Tim

## Greeting Fellow Bonsai Enthusiasts

As we near the end of another growing season, let us remember with great joy the months gone past. I hope this has been a successful season for everyone, at least in terms of bonsai trees. The warm sunny summer is good for photosynthesis as long as watering is properly and adequately attended to. The early thaw and late frost helped to reduce some of the insect pests that may otherwise wreak havoc in and among ornamental trees. The dry air kept the fungus at bay. Despite some hot days and dry lawns, I think it was a good summer.

But alas, the time to think about winter is now upon us. It looks as though we will have had a hard frost before we meet this month. That being said, tropical trees should definitely be safe inside at this point. In contrast, temperate trees must remain out in the elements to transition into winter dormancy. For deciduous trees, this tran-

A Japanese Maple in Fall Splendor

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sition is easy to see; the leaves lose their green color and fall off. After this they are unable to photosynthesize and therefore no longer require light until spring. Interestingly though, the roots can still grow, but this can deplete stored energy.

Dormancy in deciduous trees is controlled by

growth regulators within the developing leafbuds. These plant growth regulators (PGR) accumulate in the fall causing the leaves to fall off when they reach certain concentration ratios. The ratio changes in the spring when temperatures rise. This is why deciduous trees cannot go in and out of dormancy and why it is crucially important to let nature control the process. This also means that mid to late winter is a good time to take cuttings of deciduous trees; they will invest energy into roots rather than leaves until the PGR ratios change.

This month we will be discussing various ways to help ensure the survival of bonsai over the long, cold, depressing, dark, brutal, merciless, etc..... Wisconsin winter. (Last winter was a pleasant change; I doubt we'll be so lucky again.)

It seems that every bonsai artist has their own approach and technique to overwintering trees. Despite the countless techniques, there are a few common principles that always apply. Assuming you have chosen trees that are hardy in Wisconsin (the number one key to success) it is not the temperature that will kill them. Above ground the concern is wind and sun. These two forces will work together to basically freeze-dry tender branch tips.

Remember that trees don't freeze solid; there are enough concentrated sugars and such in the sap to lower the freezing point. Also remember that these trees don't completely shut down, but rather just slow down. This means that if the sun and wind are causing moisture to be pulled out of the branch tips faster than the tree can move more up these delicate tips will die. The other key concept in keeping bonsai alive through the winter is keeping their roots in good condition. Two things can happen to roots in bonsai pots and media: freeze-thaw cycles can physically damage roots by expanding and contracting sharp media, and secondly the entire root zone can dry out. The



first is fairly straightforward. The second might not be. I'm sure that everyone has noticed how ice cubes shrink over time. This process is called sublimation; this is when a solid goes straight to a gas phase. Just because a bonsai tree is damp when it freezes does not mean that it will stay damp until it thaws. In nature, all of this is perfectly moderated from above and below, but in a small bonsai pot, the balance is delicate.

Hopefully we will hear from a number of members who have been dealing with these and other winter issues successfully over the years. There is not just one simple formula for success. Every situation is different and requires different action. Please bring your questions with you. As always, I hope to see everybody there. May the force be with you.

-Matthew

# Overwintering Your Bonsai or "What do I do with my bonsai in the winter?"

http://www.mellobonsai.com/care/Overwintering-bonsai.aspx



Snow on bonsai

A common concern of bonsai hobbyists is what to do with their outdoor bonsai trees in areas with freezing temperatures in the winter months. Deciduous bonsai tree species need this winter dormancy so it is best to leave them outside to experience the seasonal cold.

However, unlike trees planted in the ground, bonsai trees are in containers. Being in containers their roots are less insulated and could freeze. If this occurs the tree could die.

To protect their bonsai trees experienced bonsai enthusiasts use overwintering techniques to bring their trees through the winter healthy and ready for spring.

#### Overwintering techniques

The following sections describe the most common overwintering techniques.

Let your bonsai become one with the earth

One of the most preferred overwintering techniques is placing the bonsai, pot and all, inside a hole. The surrounding soil insulates the pot and the roots within from temperature extremes.

First, choose a location sheltered from wind. Optimum placement would be a location sheltered from wind and under the cover of a larger tree. Next, dig a hole deep enough so that the pot, when placed inside, will be slightly lower than the soil line.

After, place a humidity tray upside down into the bottom of the hole. Place the bonsai tree on top the ledge created by the tray.

Once completed, wet pine bark mulch should be filled in around the sides of the pot inside the hole. After, a top layer of pine bark mulch should be placed on the surface of the bonsai pot's soil to make it even with the surrounding soil line. The pine bark serves a few purposes; it insulates, keeps the tree watered, and makes it easier to take out of the ground later.

Lastly, a plastic sheet can be placed over the bonsai as further protection if freezing precipitation is forecast.

#### The unheated room

The other option is to place the tree in an unheated room such as a shed, garage, or unheated greenhouse where the temperature won't rise above 50 degrees Fahrenheit. If the temperature rises too much the tree may come out of winter dormancy too early. If this method is used, it helps the roots to keep the soil more dry than wet, but not completely dried out. Additionally, inspect the tree to make sure there are no lingering insects that may try to make a meal of your tree.