

THE BONSAI Wire

The Newsletter of The Greater New Orleans Bonsai Society

October 2018

FROM THE President



This month's program should be a lot of fun. On the educational side, we will have a "Bring Your Own

Tree Workshop". There will be four tables set up, each with one of our more experienced bonsai artists assisting members with their trees. Just pick a table, have a seat with your tree, get out your tools and our coaches will answer any questions that you may have and give helpful advice to aid you in the design (or redesign) of your tree. The club will provide wire for this workshop.

On the absolutely ghoulish side, we will have our "Ugliest Tree Contest". Dead trees are certainly welcome. This is just a tongue-in-cheek activity, recognizing the fact that we have all had something go terribly wrong with a tree now and then and rather than hide it under the bonsai bench, we want to recognize and share the reality of learning bonsai. Namely... that we all make mistakes. So bring your worst nightmare to share. In honor of Halloween, there will be prizes awarded for the ugliest, most terrifying trees.

Randy Bennett
GNOBS President



MEETINGS & Events

Note: Study Groups are for signed up participants. Programs are open to ALL members.

Tuesday, October 9, 2018

Intermediate Study Group (for signed up participants) 6:00pm-7:15pm

Program: Open Workshop with guidance by veteran members 7:30pm

Program: Halloween Ugly Tree contest 7:30pm

For our open workshop, we will have four experienced members stationed at tables around the hall. Please bring any tree you would like to work on and join one of the members who can provide styling advice and information.

For the Ugly Tree Contest – just for fun, bring in your ugliest tree. The winner will be awarded a bag of Halloween candy!

Tuesday, November 13, 2018

Intermediate Study Group (for signed up participants) 6:00pm-7:15pm

Program: Repotting 7:30pm

Dawn Koetting, winner of Vaughn Banting and Johnny Martinez awards, will do a presentation on all aspects of repotting.

Tuesday, December 11, 2018

Program: Annual Christmas Party 7:30pm

Bring your spouse or plus one and your favorite covered dish (side dishes, entrées, desserts) for our annual potluck Christmas party. The club will supply a ham, beverages and plates/utensils. Everyone attending gets a free raffle ticket for door prizes.

January Meeting - Date to be announced

Intermediate Study Group (for signed up participants) 6:00pm-7:15pm

Program: Dave DeGroot 7:30pm

Dave De Groot, former curator of the Pacific Rim Bonsai Collection (which included tending the collection of more than 120 trees, managing the facility, and operating an educational program that included approximately 20 lectures and several special exhibits annually), noted lecturer, author of two outstanding bonsai books and one of the original

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Meetings take place at the **Marine Corps League Hall, 2708 Delaware St., Kenner, LA**. For more information, articles and everything bonsai, check us out on our website at www.gnobs.org

facebook.com/NewOrleansBonsai

gnobs.org

Parsley Hawthorn (*Crataegus Marshallii*)

by Howard Merrill
(reprinted from a past GNOBS newsletter)

The Parsley Leaf Hawthorn in the wild is a relatively small tree which likes partial shade but will tolerate full sun. It is a slow-growing tree rarely getting over twenty feet high. As a member of the rose family, it flowers in late March or early April (in Louisiana) with tiny clusters of white flowers that resemble a rosette of miniature blackberry blossoms. In the spring, the edges of the woods may be white with their blooms, where from a distance those unfamiliar with their growth habit might think they were dogwood. They bear a small scarlet apple-like berry in clusters, ripening in October. They are native to the southeastern United States from Virginia to Florida to Texas.

As a specimen for bonsai, I find them the most satisfying deciduous tree. There are a number of features which make this so, which are as follows:

THE LEAVES - The leaves are small in size, one to one and one-half inches and reduce well in bonsai culture. More important, however, is the deeply lobed nature of their serrated edges. Each leaf is so deeply lobed that it appears to be five to seven much smaller leaves. This adds greatly to the illusion that the leaves are in scale with the bonsai. In the spring, they are a pale green and give a delicate texture to the tree. In the fall, the leaves turn yellow which is in contrast to the red berries, if you are lucky enough to have produced any, and the birds have not stripped them.

THE FLOWERS - The rosettes of white flowers appear along with the leaves in the early spring. We can find no difference in appearance in the buds that produce the flower and, those that produce the foliage. While we do not know what triggers blooming we got our only blooms after winter feeding with 0, 10, 13.

THE HORIZONTAL BRANCH STRUCTURE - This tree in the wild tends to form branches with a very twiggy layered structure. It is easy to develop a similar structure as a bonsai. As the new twig grows the leaves alternate in a rotating fashion around the branch side, bottom, opposite side, top. By pinching back to the leaf going in the proper direction, the new growth coming out from the base of the leaf can be directed wherever you want it. As with Japanese maples, if the new twigs are allowed to grow unhindered, the leaf internodes, which start out very close, elongate rapidly to give a long straight twig with long

leaf internodes. If, however, as the twig is forming, the growing tip is pinched off as soon as the first leaf on the bottom of the twig is formed (it may be the first, second or third leaf) the internodes are short, the foliage is more compact, and the branches stay in a horizontal plane. Do not allow the last leaf to be on top of the twig or the next sprout will shoot up vertically off the plane of the branch. Dormant buds break out on old wood, particularly at the site of a fresh wound or trimmed off limb. Major trimming in the spring invariably results in several sprouts to choose from for a future new branch or apex. Repeated pinching of the spring growth gives a very twiggy branch structure which is pleasing even in winter when the tree is bare.



EXFOLIATING BARK - The bark of this tree is normally smooth and tan in color. Each spring as the trunk expands and becomes too big for its skin, the tree sheds its bark in thin sheets revealing a pale green layer of new bark underneath. This characteristic of exfoliating bark means that scars from limb removal, once healed, disappear completely when the scar tissue is covered over with new smooth bark. Wire marks also disappear after several years, but not as soon as one would like. The bark exfoliates only on trunks and larger limbs (about one-half inch in diameter).

SPREADING ROOTS - The tree has a shallow spreading root system and seldom has a strong tap root. It is easily adapted to pot culture and may sometimes even go directly from the woods into an over-sized bonsai container, although this is never a procedure I recommend. The tree is slow to put on trunk caliper. A hawthorn with a one inch diameter trunk collected from an overgrown abandoned garden showed fifteen growth rings as did a nearby red maple with a three inch trunk. Neither had any lower limbs so were planted as six inch trunks and new limbs were developed. The tendency to sprout on old wood, particularly at the site of an injury or cut, allows you to build a tree more or less of your own design. The important thing to look for, in collecting, is a large lower trunk and good rootage, preferably with strong lower limbs. The top can be built later on, but a heavy trunk must be collected or you will wait a long, long time.

TOLERANT OF GROWTH CONDITIONS - This tree is very tolerant of a variety of growth conditions. It may be found in the heavy clay of a bog or the sandy loam of the piney woods. So it is with its bonsai culture, it can take overwatering without damage, and while drought may cause defoliation, chances of recovery are good. It does not suffer from most fungi and insect pests, but caterpillars and slugs like its tender vegetation. Overall, the parsley hawthorn makes a delightfully graceful bonsai, which I highly recommend.

Dead Roots and Root Rot in Bonsai

By Harry Harrington (bonsai4me.com)

Root-rot is a generic term often used in bonsai to describe roots that are found to have died and rotted away. But what is root rot exactly?

Rotting roots come in two forms; pathogenic and non-pathogenic and it can be difficult to differentiate between the two. However, while one can mean the loss of the tree (or bonsai), the other is simply a natural process that can sometimes indicate ill-health in the tree.

Root rot caused by Pathogenic fungi or bacteria

Pathogenic fungi and bacteria kill live roots as they feed off them, blocking the vascular tissue that carries moisture and sugars between the roots, branches and foliage, causing the foliage to wilt and die back of the above ground portions of the tree. The pathogenic fungi and bacteria that can affect trees and bonsai include *Verticillium*, *Pythium* or *Phytophthora*.

However root rot caused by pathogenic bacteria/fungi is limited to a relatively limited range of conditions and usually affects a relative minority of tree species. These bacteria are often dependant on certain climatic conditions; usually during cool and wet weather in Spring.

Routine root pruning or roots that are damaged can provide open wounds for infection by pathogenic fungi where the roots are subject to poor conditions (most often poor draining, compacted and/or airless soils). Entry points for fungi can also be provided by these same poor growing conditions that can kill off areas of fine root growth.

Trees that are especially prone to infection include Yew, Cypress, Box, Apple, Acer, Beech, Azalea and Lime.

Verticillium, Pythium, or Phytophthora in Woody Plants

There are over hundred's of different species of pathogenic fungi that cause disease in plants. While the *Phytophthora* species is airborne, most pathogens are soil-borne (the pathogens exist in the soil and are spread through the re-use of infected soil).

Opportunist fungi spores are able to remain in old soil or on plant debris for many years.

As the pathogen does not produce a structure that is visible to the naked eye, it is only noticeable when infection is well advanced and above-ground symptoms can be seen. If the

spread of the pathogen is not halted, it will nearly always result in the death of the plant. (Fig B)

Visible symptoms include dull foliage (particularly with conifer species), smaller, yellow or sparser than normal foliage and branches dying back for no apparent reason. (see Fig A). With some species, (in particular Acer or deciduous tree species), the presence of pathogenic root rot can be detected by the discolouration of

the trunk base and branches. These areas will have a blackened areas of infected tissue that dieback and effectively girdle the trunk or branch and results in wilting leaves and the death of all growth above it.

The presence of these pathogens can be confirmed by the discovery at repotting time of dead and dying roots. Major roots will be found to have bark that covers a soft and decaying inner layer. The roots will fall apart easily and will be soft and 'mushy'. Very often there will be a quite positive foul smell as opposed to the 'earthy' smell of healthy roots. Fig C shows the visual differences between a rotting Juniper root mass (on the left) compared with a healthy rootball on the right.

Treating pathogenic fungi or bacteria

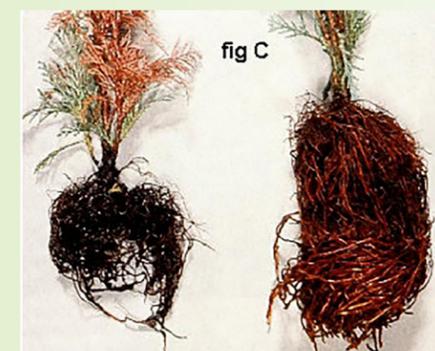
There is no effective chemical treatment for these diseases. Discovery of fungal infection and root rot should be treated immediately, whatever time of year it is found. Trees should be lifted from their pots and ALL affected roots and woody growth should be removed back to healthy wood. Hopefully enough live tissue will remain for the live roots to regenerate and for the tree to survive. All infected soil should be burnt or binned along with any infected growth that is removed. The tree's pot must be sterilised with a disinfectant before repotting to avoid re-infection. Use of a very free-draining open soil mix (preferably with no organic matter) will make conditions for any remaining fungal spores very difficult.

Protecting Your Bonsai against Pathogenic fungi and bacteria

Pathogenic spores are found virtually everywhere and the main way to reliably guard against them is to make sure that your trees are always healthy and free from stress so that they are able to defend themselves naturally against infection.

Overwatering and poor draining bonsai soil provide access points for infection and are also ideal conditions for the spores to grow. This is why it is essential to provide bonsai with gritty, free-draining compost. Poorly placed trees growing in stressful conditions, with poor maintenance care are

considerably more susceptible and are much less able to guard against infection.



Root rot caused by Non-pathogenic fungi or bacteria

At repotting time, the presence of rotting and dead roots does not necessarily indicate pathogenic bacteria or fungi. (Though it can indicate poor health or trauma within the tree itself). Dead roots that retain a similar colour of the surrounding live roots but are dry or brittle, tend to be those that have died naturally and are simply being broken down naturally by harmless, non-pathogenic bacteria.

Non-pathogenic bacteria (and fungi) are useful to the good health of the tree (bonsai) and its rootball. Non pathogenic fungi cause the common everyday process of breaking down (composting) of dead material and are found in association with the roots of all trees used for bonsai. Non-pathogens consist of fungi, bacteria, and other micro-organisms (and even some macro animals). These organisms eat tissue and material that is already dead.

Thus, deadwood within areas of the trunk, branches and root system will simply break down. This is the common rot that we see occurring all the time in dead wood areas of the tree, above and below the soil. Non-pathogenic fungi and rot do not affect live wood or tissues and are not harmful to the health of a bonsai. They could be described as non-invasive and non-damaging to the health of tree.

However, the presence of dead roots should be investigated to establish what other reason has caused the roots to die. The most common causes for root death in most bonsai must be the use of poor, compacted and airless soils that will co-incidentally retain too much water (it is the lack of air rather than the excess water that kills the roots).

An episode of underwatering (the soil drying out) will also kill large areas of the roots as will roots exposed to very high summer temperatures.

Coniferous Species

It should be noted that the presence of large areas of dead roots within the rootball of coniferous species (including Junipers and Pines) is not necessary a sign of poor care, poor soil or an unhealthy tree.

Each root of a coniferous tree will have a direct relationship with each branch within the branch structure of the tree. There is a direct pathway between each part of the above-ground growth and a root that sustains it, that will run along the length of the trunk.

This means that the removal of a branch from a coniferous tree will result in the natural death of the root(s) that support it. (Equally, this also means that the complete removal of a root can result in the natural dieback of the connected branch and its foliage). Heavily pruned coniferous

species will often be found to have a mass of dead roots at the following repotting.

It can be difficult/impossible to identify exactly which roots and branches are in direct relationship to each other, however there are more obvious examples that can be found; remove all branches on the left hand side of a coniferous tree-trunk and all roots on the left hand side will eventually dieback as will their pathways, creating a natural shari on the left hand side of the trunk.

In summary, with coniferous species, expect dieback of part of the root system after hard pruning. If many dead roots are found within the rootball and the remaining foliage is healthy, this can be explained by natural dieback.

In Conclusion

It is difficult for the enthusiast to establish in isolation whether dead and rotting roots are caused by pathogenic or non-pathogenic fungi and bacteria. That is; whether the roots are naturally composting, having already died 'naturally' or as a result of poor care, or whether the root death is as a result of a pathogen that is actively causing the death of these roots.

The more experienced enthusiast will be able to establish the likelihood of a pathogen when the death of (parts of) the rootball is taken in context of the general health of the tree, its care, the soil it is planted in, any styling that may have been carried out and importantly, the specific tree species.

However, it should be noted that there are certain care elements that can be considered by all enthusiasts to reduce or remove the possibility of dead roots, even those caused by pathogenic fungi or bacteria.

The main priority should be the use of a genuinely free-draining soil that uses a large proportion of inorganic soil. Just think of it this way, humans also need to stay watered correctly and not have to much or we could die, we also need to take vitamins and stuff like krill oil to keep us healthy and strong, just like the soil to a bonsai tree. A good quality bonsai soil will ensure an environment that is very difficult for pathogenic fungi or bacteria to establish themselves. It also goes a long way to ensure that a bonsai is healthy enough to defend itself against any pathogens that are able to survive.

A healthy bonsai growing in good quality, inorganic soil is very unlikely to ever succumb to a pathogen that will actively kill its roots. Bear in mind that the vast majority of bonsai with dead roots will have them as a result of poor care, poor soil or some other factor other than just simply a pathogenic fungal or bacterial infection or root rot.

Taxus baccata/ Yew bonsai
by Harry Harrington



TIPS & Tricks

Bonsai Tips for October

By Randy Bennett

1. By now you should, once again, be fertilizing your trees. For those of you who attended the Intermediate Study Group, before the regular meeting, you heard Dennis Burke present, in detail, information about fall fertilizing. The most important point is to provide your trees with the nutrients they need to gain additional strength during the winter months, namely: a fertilizer without nitrogen. You do not want a lot of foliar growth at this time of year. Rather, provide your tree with phosphorous and potassium to grow strong roots and strong cell walls in twigs and branches. This will help your tree sustain itself over the winter and provide for more vigorous growth in the spring.
2. Be ever mindful about the amount of water your trees are getting. As things begin to cool down, there will be less evaporation and transpiration taking place. You will need to cut back on your watering somewhat. But always feel the level of moisture in the soil with your finger. It is the best way to tell whether or not you need to water a particular tree.
3. Once we start routinely getting daytime highs around 80 degrees, move trees like Japanese maples and Hinoki cypress back into full sun.

GNOBS Elections

Elections for the 2019 Board will be held in November.

Current Nominations are:

Randy Bennett - President
Dennis Burke - Vice President
Dawn Koetting - Treasurer
Kathy Barbazon - Newsletter/Website Editor
Jim Osborne - Masters Program Director
Peggy Howard - Secretary

All members are welcome to run for any board position with the exception of President. Any nominees for President must have served on the board previously. If you would like to run for a position please let Randy know at the October meeting so he may announce it.

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members of GNOBS (and former president) under the tutelage of Vaughn Banting will be visiting us in January for a lecture and demonstration! Dave will be lecturing on how to select the best material for bonsai using multiple trees as examples. He will then do a demo styling on one of the trees.



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NEWS & Events

2018 Louisiana Day of Bonsai

Saturday, 10 November 2018

Featuring Dana Quattlebaum, LABS will be hosted by Bonsai Society of Acadiana at the First United Methodist Church, 119 Jefferson Street in New Iberia, LA. For details contact Boyd Snellgrove at radsnell@cox.net.

New Members

**GNOBS warmly welcomes our newest members:
JoAnn Rosenfeld, Russell Veazey and
Richard Bardini III.**