



# THE TWIG



## GROWING BONSAI UNDER LIGHTS WITH IRIS COHEN

ALBANY COUNTY COOPERATIVE EXTENSION  
24 Martin Road ( corner of Rt 85A)  
Voorheesville, New York 12186

**BRING A LUNCH AND PERHAPS SOMETHING TO SHARE AT NOON**

With fall here and winter approaching, it is time to think about winter bonsai. One solution to bonsai winter withdrawal syndrome is to grow them under lights. Come and learn from a very experienced grower of bonsai under lights. Iris Cohen has written articles on the subject for International Bonsai magazine and has grown bonsai under lights for 21 years.

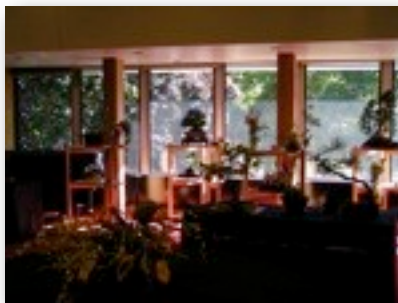
Since this meeting is on Halloween, let's show the spirit of the day by bringing in special bonsai for the show table.



### OCTOBER HINTS

While the weather is still pleasant, prepare your winter storage area. It is a good time to check over your bonsai and mark those that must be transplanted in spring. Do not let the bonsai dry out because the weather is cooler and it makes you think water is not as needed.

## MHBS ANNUAL BONSAI SHOW WITH THE CAPITAL DISTRICT SOGETSU STUDY GROUP





A PHOTO ESSAY WITH  
PHOTOS PROVIDED BY

The Sogetsu Group  
created  
wonderful color  
for our show

ALAN AND JON

Many thanks to  
Mary Bohnet for  
bringing the Sogetsu group to our show

## A Bonsai Close-Up on Indoor Tropical Bonsai in Northeastern Zones

By Pauline F Muth of pfm bonsai studio

In the traditional sense of bonsai, there are no indoor bonsai.

Bonsai artists created their masterpieces from the local species that could remain outside year round in their climate. Modern houses generally are not suitable for the growth of bonsai. Yet people today want to grow their trees inside their homes; so specialized botanical knowledge that allows people to grow houseplants must be learned and modified to work with bonsai. If we remember that the first bonsai artists had to learn the special techniques that allow a tree to survive in a pot environment, we can treat growing bonsai indoors as a learning extension of existing bonsai horticulture.

In order to grow bonsai in our homes we need to overcome the following problems that are inherent with indoor conditions:

- Lack of enough **light** intensity and duration for photosynthesis
- Low **humidity** (this effects some species) that can be desert like
- **Insect** infestations that occurs when household insects are treated to your fresh bonsai
- **Temperatures** that are not compatible with the life cycles of certain species

**Indoor bonsai** are those that are designed from trees or shrubs that are

- **not hardy** in our climate and
- must be **protected from frost** and freezing by being grown indoors in cold weather. (Under most circumstances it is too difficult to grow the bonsai from species that are hardy in our climate indoors. There are some special techniques that can make it possible. This will be discussed in a future Close-Up.)

During frost-free months indoor bonsai should be grown outside on a table or stand. Most take full sun. Ask the merchant for the proper light conditions for your plant or research the conditions it needs.

### Growing conditions for Indoor Bonsai

1. **LIGHT** Light is the energy that uses nutrients, water and air to produce life and growth.
  - a. When indoors, give the bonsai as much light as possible [A southern, western or eastern window can work. A northern exposure is not enough light. Ideally you should provide artificial light (12-14 hours under plant lights)]. Turn the tree often for best growth. Each species of bonsai has its own light requirements...ask about this when purchasing the bonsai or research their needs in order to grow them best.
  - b. **Lack of light is the critical limiting factor** when it comes to growing tropical or semi-tropical trees indoors. Even if you have a greenhouse, you will need to provide additional light in fall and winter until the days get long enough to supply sufficient light energy. If you are growing your bonsai in a southern window, add in artificial light to supplement the natural light.
  - c. There are a few species that can exist in the southern light of fall and winter and will survive until summer. Ficus and Carissa are two of these. It must be noted however that the internodal spacing of new growth will be longer than you would like and the leaf color may not be as green as in summer.
  - d. Flowering species require the most light especially if you want blooms.
  - e. Bonsai do well in artificial light gardens. Growing under various types of artificial lights allows you full control over the bonsai's environment. Choose wide spectrum fluorescent lights. Grow the plants close to the light. Adjust the distance based on the plants reaction in your environment.
  - f. Measure light with a light meter and set up conditions that match the known requirements of the bonsai tree.
2. **AIR AND HUMIDITY** When the bonsai are outside in the northeast humidity is not a problem. Our often desert dry interiors increases the transpiration rate of plants and dries them out too quickly. In order to keep this under control, we must provide additional humidity. We can also adjust the type of tree or shrub we use. Plants with thicker leaves can tolerate lower levels of humidity that those with thin leaves. The ideal humidity for indoor bonsai is 40% to 50%. Check with a humidity meter (hydrometer) or use the wet blue jeans test. Hang a pair of washed blue jeans in the area you wish to grow your bonsai in the evening. If the jeans are dry by morning, the humidity is too low. There are several methods you can use to raise humidity in your growing area of your house.
  - a. You can use a humidifier in the house to bring up the humidity for your bonsai and for your health too. The cool mist type works well.
  - b. Place glasses or cups of water around your bonsai. As the water evaporates, the humidity rises.
  - c. Place trays of water under your bonsai. Remember to place the bonsai on tiles to keep the roots out of water.
  - d. Unless you have forced air heat, you may wish to add a small fan to improve air circulation around your bonsai.
3. **TEMPERATURE** This will depend on the type of indoor bonsai you wish to grow
  - a. **Tropical**
    - i. Grow in warm temperatures throughout the year
    - ii. Inside they need 64-75 degree F daytime temperatures with 57 to 61 degree temperatures at night.

- iii. These need warm feet...that is their soil needs to be warm. This can be accomplished by soil heating pads used for seed germination or using house heating systems like radiators.
  - b. **Subtropical**
    - i. Those that grow naturally with warm summers and cool winter
    - ii. Inside they like cool conditions from 41 to 59 degrees F and can go a bit lower at night.
  - c. **Semi Hardy**
    - i. These trees are boarder-line hardy in our climate. Follow temperatures for subtropicals but leave these outside in the fall until leaves have dropped before bringing indoors.
    - ii. They can survive light frosts in fall before they are moved indoors.
    - iii. Many of these trees can be treated as hardy bonsai.
- 4. **WATER**
  - a. Water them regularly (no softened water) with lukewarm water. Cold water reduces the plants ability to absorb nutrients. Let your full watering can stand overnight and the water will be at the proper temperature. Outside you may use a watering can with a fine rose or a garden hose equipped with a fine nozzle. Indoors, in your sink, water gently from the top daily. DO NOT soak established bonsai for watering. If you leave bonsai soaking in a tray with water you will develop root rot. You may water by immersion BUT do not soak them.
  - b. NEVER allow the bonsai to dry out completely. Keep the soil slightly moist but not wet.
  - c. To increase humidity place a few stones or small tiles in a tray of water and place the bonsai on these tiles. The tray should be larger than the total width and depth of the bonsai. Most indoor bonsai will need daily watering in the arid environments of our homes.
  - d. (Note: if the bonsai soil is too compacted or has glued on stones, the trees will not grow since the soil will not take in water...return the tree to the merchant if you just have purchased it. If the compaction is due to lack of repotting, do so. The ideal timing for repotting is discussed later.)
- 5. **FERTILIZER and OTHER NUTRIENTS**
  - a. Fertilize with organic pellets such as Bio Gold during the growing season. These pellets allow you to fertilize once each month and they fertilizer is slowly released as you water. Begin their use at the beginning of January and discontinue in September.
  - b. In January or at repotting, treat the soil with a dose of micronutrients and a dose of chelated iron. Repeat the iron one month later. Spring for these trees starts in January if they have enough light.
  - c. If the tree is a flowering species, add a dose of super-phosphate each month to promote flowering. Continue to fertilize through September. Allow the tree to rest from October through December.
- 6. **INSECT AND DISEASES PROBLEMS** While the bonsai is indoors wash the plant in Ivory Liquid solution, Concern Soap or Safer Soap every 10 days to prevent insect problems. Remember to rinse the plant later with clear water. I have found that I only need to do this for 3 times in the fall and generally I do not have problems during the winter. When the bonsai is outside, insect problems are greatly reduced. You will note that my recommendations are natural rather than man made chemicals. I prefer to limit the species I grow rather than grow certain species that often have difficult to control problems. I will not add more harmful chemicals into Earth's environment. When you bring a new bonsai into your home environment, keep it separate and wash it a couple of time before putting it near your collection. Specific problems that may occur include:
  - a. **Powdery Mildew** A fungus infection on the top of the leaves usually the result of a lack of air circulation combined with evening watering on the leaves.
  - b. **Downy Mildew** A grey covering on the underside of the leaves with yellow spots on the top of the leaves. Here again poor circulation and wet soil is at fault. This also occurs when humidity is too high.
  - c. **Chlorosis** When leaves are yellowish and veins remain green. This is an iron deficiency, Treat it with chelated Iron. In the long run it is advisable to treat your bonsai soil with iron as a regular routine rather than wait for problems to occur.
  - d. **Sooty Mold.** This is a black mold of older plants and can result in an aphid infestation. Increase circulation and treat with a fungicide. Treat this early or you your bonsai will be killed.
  - e. **Root Rot.** Results from wet soil. You must remove the rotted roots and change the soil. Revise your watering technique so that the soil does not remain so wet. Keep fertilizer to a minimum until you see a healthier plant.
  - f. **Aphids.** You can often keep these at bay by showering them off. Place yellow sticky around the plants to attack the flying stage of this and other insects.
  - g. **Scales.** Scratch off or use alcohol on a swab.
  - h. **Spider Mites.** Keep mites from affecting your bonsai with a soap wash as previously described. Once you see the webs, your plants are in serious danger. Wash the plant once every 10days for 3 cycles to TRY to eliminate. A miticide may be needed
  - i. **Whiteflies.** Again use the yellow sticky cards and wash with soap.
  - j. **Mealy Bugs.** Use alcohol on a swab.

7. **TRIMMING** Use normal bonsai trimming techniques. Remember that "Spring" for indoor bonsai begins December 22 as the length of daylight begins its yearly lengthening. Do not allow the tree to get out of control in January and February when they will go through a period of rapid growth. At this time the length and intensity of light is critical if you do not want long internodal spaced.
8. **REPOTTING** Repot tropical trees in mid summer during their dormant period or in early winter before new growth starts. Subtropicals and Semi hardy bonsai should be repotted in winter when grown indoors. This is at the end of December or early January. Repotting involves changing the soil and trimming the roots so that new fine roots may grow. Soil breaks down in time and needs replaced. Signs of the need to report include water not being absorbed and roots that fill the pot (lift the tree and look). When you repot, add iron, micronutrients, mycorrhiza and Bio Gold to the bottom layer of soil. You can trim MOST root systems back by 1/3 at repotting time. Be sure to put mesh over the pot holes and wire the bonsai into the pot. After repotting, you will soak the bonsai in a solution of water and transplanting solution.

Some indoor bonsai may be kept indoors year round IF provided with plenty of light, higher than normal household humidity and regular watering and fertilizer. They will benefit greatly from being placed outdoors in frost-free weather. When making the transition from indoors to outdoors you must be careful to prevent leaf burn. For some species you can defoliate before moving the tree outdoors. For other species you will need to slowly acclimate the bonsai by moving it into a shady area first before gradually moving it to full sun.

Growing bonsai indoors is an adventure in learning. Start with one or two of the easier species and achieve success with them before moving on. Start with small sized bonsai, as the light requirements for them are more achievable than larger species.

### WHAT SPECIES MAKE GOOD INDOOR BONSAI?

Characteristics of trees that make good indoor bonsai:

- Life cycles that do not require temperature fluctuations...temperature and seasonal changes in their natural environment are minimal
- Their natural climate is similar to that of our home's interior.
- They exhibit the normal traits of good bonsai...e.g. adapt to pot environments, small leaf size, good branching

### Some Species that have been grown for bonsai indoors

		<u>Difficulty</u>	<u>Lumens</u>	<u>Temp Range</u>
Adenium obesum	Desert rose	easy	1000	Subtropical
Bougainvillea glabra		easy	2000	Subtropical
Bucida spinosa	Black olive	moderate	1500	Tropical
Buxus	Boxwood	moderate	800	Semi Hardy
Carissa macrocarpa or grandiflora	Natal plum	easy	900	Sub tropical
Calliandra hamematocephala	Powderpuff	difficult	2000	Subtropical
Camellia japonica		moderate	1000	Subtropical
Carmona microphylla	Fukien tea	difficult	1000	Tropical
Cuphea hyssopifolia	False heather	moderate	1000	Tropical
Cotoneaster		easy	1500	Semi Hardy Hardy
Eugenia myrtilifolia	Bush cherry	easy	1500	tropical
Ficus	fig	easy	800-2000	Subtropical /trop
Fuchsia		moderate	800	Subtropical
Gardenia		moderate	1000	Subtropical
Grewia	Star flower	moderate	1500	Subtropical
Hedera	Ivy	easy	800	Semi Hardy /Hard
Lantana		moderate	2000	Sub Tropical
Malpighia coccigera		moderate	1500	tropical
Murraya paniculata	Orange jasmine	moderate	1000	Tropical
Myrciaria cauliflora	Jaboticaba	moderate	1500	Tropical
Myrtus communis	Myrtle	moderate	1000	Semi Tropical
Olea	olive	easy	1000	Sub Tropical
Pelargonium	Geranium	easy	1000	Sub Tropical
Punica granatum Nana	Dwarf pomegranate	moderate	1500	Sub Tropical
Pyracantha	Firethorn	moderate	1000	Semi Hardy /Har
Rosmarinus officinalis	Rosemary	moderate	1000	Sub Tropical
Sageretia theezans		difficult	1000	Sub/ Tropical
Serissa foetida		moderate	1000	Tropical
Ulmus parvifolia	Chinese elm	easy	1000	Semi Hardy

There are many others species that can be used for indoor bonsai. Experiment.

Please be advised that the above information is the result of my experiences with my specific horticultural habits in my climate and may not work as well for you. Experiment with a few bonsai at first and modify based on your experiences.

All in all, unless you are willing to construct a good growing environment and get you bonsai outside for the frost free months, get a greenhouse for indoor bonsai and even then you will need to supplement the light for many species.

### **Mohawk Hudson Bonsai Society Minutes for September 19, 2010**

An informal meeting was held at the annual show, this year at the Arts Center in Saratoga Springs, NY @2:15 PM. President Tom Kiskiel, Vice President Jon Staples, Secretary Dorothy Raymond, Show Chair Adriano Manocchia, Sandy Kiskiel and Pauline Muth were present.

#### **Show**

Everyone agreed that this venue worked well. We had more attendance than at Faddegon's. Discussed show dates for next year. Although we'd like to have a spring show, the dates won't work for next year. Looking at the third weekend in September (17/18) for 2011 and first weekend in May (5/6) for 2012. We made @ \$200 in sales this year. We'll look into getting more vendors for next year and perhaps styling some tropicals by the club members for sale at the show.

Also discussed splitting the cost of the space with the Ikebana Society – thought \$150 would be fair. Suggestions for next year: putting a banner up on the park side of the building or big posters in the windows. Dorothy will send a thank you note to the Arts Center Director.

#### **Programs for Next Year**

Jon has a tentative list of programs developed. Speakers are being contacted for their price and availability

#### **Mid-Atlantic Tree Selection**

The following trees were selected by the membership for display at the Mid-Atlantic Festival next spring:

##### *Large Trees*

Satsuki Azalea – Pauline  
Brazilian Rain Tree – Tom  
Literati Pine – Pauline (back-up)

##### *Shohin*

Seiju Elm – Dorothy  
Needlepoint Ivy – Pauline  
Cotoneaster – \_\_\_\_\_ ?? PLEASE LET US KNOW IF THIS WAS YOURS  
Grewia – Pauline  
Trident Maple in long rectangular pot – Pauline  
Eastern White Cedar – Pauline (back-up)  
Dwarf Korean Privet – Pauline (back-up)

Respectfully submitted,

Dorothy Raymond  
Secretary - MHBS

**American Bonsai Society / BCI June 2011...ABS-BCI Louisville Kentucky**



**BONSAI IN THE BLUEGRASS** <http://www.bonsaiinthebluegrass.com/>  
**FOUR DAYS OF GREAT BONSAI CLASSES, DEMOS, VENDORS AND FUN** Register by Nov 2010 and be entered in a drawing for the registration fee.

**Officers MHBS 2010**

- President Tom Kiszkiel 845 587 9115 [Kiszclove00@aol.com](mailto:Kiszclove00@aol.com)  
Vice President Programs Jon Staples 518 395 9174 [jstaples@nycap.rr.com](mailto:jstaples@nycap.rr.com)  
Vice President club show Adriano Manocchia 518 677-5744  
[adriano@tsmandco.com](mailto:adriano@tsmandco.com)  
Treasurer Mike Curthoys 518 371-3668 [curthoys@hotmail.com](mailto:curthoys@hotmail.com)  
Secretary Dorothy Raymond 518 732 2364 [draymo@earthlink.net](mailto:draymo@earthlink.net)  
Past President David Payton 518-356-3299 [dpayton@nycap.rr.com](mailto:dpayton@nycap.rr.com)  
Newsletter Editor Pauline Muth 518 882 1039 [Pauline@pfmbonsai.com](mailto:Pauline@pfmbonsai.com)  
Club Photographer Alan Tallman 914-980-5407 [Awtallman@aol.com](mailto:Awtallman@aol.com)



**MHBS and beyond Calendar 2010: Items shaded are non club events that members may wish to attend and are provided as a service to our members.**

date	event	location	host if needed
October 23-24	pfm 20th Anniversary open house	pfm bonsai	<a href="http://www.pfmbonsai.com">www.pfmbonsai.com</a>
October 31	Growing bonsai under lights with Iris Cohen	Voorheesville NY	bring lunch and perhaps sometime to share
November 24-28	FELAB in Mexico Muth speaking	Meridia MX	
November 28	3 members design one bonsai	Voorheesville NY	bring lunch and perhaps sometime to share
December 12 6 PM	Holiday Dinner AND AUCTION	Charlton Tavern	BRING AUCTION ITEMS



## TENTATIVE PROGRAMS FOR 2011...

### comments should be given to Jon Staples

- January 30, 2011 Pottery Workshop with Adriano in Voorheesville
- February 27, 2011 Larch Follow-up with Pauline in Voorheesville
- March 27, 2011 Speaker TBD.
- April 24, 2011 Speaker TBD.
- May 22, 2011 Fruiting Bonsai WS with Pauline and other members at PFM Bonsai.
- June 26, 2011 Pine WS with Bernie Gastrich AM bonsai photo session at PFM
- July 31, 2011 Suthin workshop and demo at PFM Bonsai
- August 28, 2011 Open WS and annual picnic at PFM Bonsai
- September 17-18, 2011 MHBS Annual Fall Show at the Saratoga Springs Art Center
- October 30, 2011 Conifers WS with member leaders at PFM Bonsai
- November 27, 2011 Literati WS with Pauline in Voorheesville
- December Annual Christmas Party/Dinner

## RESERVE YOUR PLACE AT THE 2010 HOLIDAY AUCTION AND DINNER NOW

MHBS will have its annual dinner and auction at the Charlton Village Tavern in the center of the village of Charlton at 6 PM on December 12.

The menu:

Cheese & Crackers with CASH bar

Chilled garden salad

Entree choices:

- **Chicken ala Charlton-** sauteed medallions of chicken, smoked ham and roasted pepper, in a sherry butter sauce finished with Gruyere cheese
- **Haddock Pomodoro-** sauteed fresh haddock with fresh Roma tomatoes, herbs in a white wine butter broth
- **Horseradish Encrusted Pork Loin-** oven baked horseradish encrusted pork loin with a port wine demi-glaze

The above entrees served with garlic mashed or rice and fresh garden vegetables

Coffee/dessert

The total cost per dinner is \$30.50 which includes tax and tip. Email or call Mike Curthoys (18 Archer Drive, Clifton Park, NY, 12065-2444) with your choice of dinner. Send him a check before Dec. 4 to secure your reservation.

**Start looking for your extra bonsai items to wrap for the auction. Remember this is our major fund raising event and will support our speakers for 2011.**



## check out these bonsai links

American Bonsai Society - [www.absbonsai.org](http://www.absbonsai.org)

Bonsai Clubs International - [www.bonsai-bci.com](http://www.bonsai-bci.com)

MidAtlantic Bonsai Societies - [www.midatlanticbonsai.freesevers.com](http://www.midatlanticbonsai.freesevers.com)

National Bonsai Federation - [www.bonsai-nbf.org](http://www.bonsai-nbf.org)

The MHBS newsletter "The Twig" is also posted at [www.pfmbonsai.com](http://www.pfmbonsai.com)