PBA Clippings
NEWSLETTER OF THE POTOMAC BONSAI ASSOCIATION
Volume 30, Number 3
29 May 1999

PBA's Popular Auction at Behnke Nurseries is Our 22nd Annual

If you haven't been yet, don't miss this 22nd Annual PBA Auction on Saturday, May 29. It's a once-a-year opportunity to mingle with over 100 other bonsai hobbyists to purchase and/or sell bonsai trees and related material from your bonsai peers. This is better than buying retail!

The Behnke Nurseries Co. will host the PBA Auction for the 21st year in a row. All members are grateful to Behnke's for their support. Auction will be 10 am - Noon sharp at Behnke's of Beltsville, MD.

Here's how it works:

- 8 a.m., Behnke's opens, volunteers arrive to set up.
- 9 a.m., Sellers must register items for sale. PBA members may sell up to 7 trees or "lots" of material only, i.e.; pots, tools or publications. Sellers will fill out a card for each lot telling name of tree, age, source, etc. Sellers will receive 80% of sale price mailed to them after the event, and 20% goes to PBA (unless the seller has specified all profit should go to PBA). Proceeds of the sale benefit PBA by funding speakers, demonstrations, our education program in the schools (and prisons), and other events all year long.
- 10 a.m., Auctioning starts. All are welcome to buy, but only current PBA members may sell. Volunteer runners will move trees from auction block to holding corral. Bidders can be confident their purchases will be secure while they continue bidding.
- Noon, Last item is auctioned.

Checks and cash only. The Auction will be held rain or shine.

Volunteers are needed as item registrars, auctioneers, runners to show trees through the bidder crowd and convey the purchased items to the "Sold" corral, sales registrars, chair setter uppers, etc. None of these jobs are hard.

Contact Sally Griffin, Chair, PBA Annual Auction
(703) 934-2720 X223, ignition@eclipsetel.com.
She's working to make this happen for you, but she can't do it alone.

Take Beltway exit 25 towards Laurel (US Rt. 1). Go approximately two miles to Behnke's on the left. Pass main entrance and flowering beds and go to adjacent cream colored, brick building. This is called the Dawn Rose building or the Florist's building.
Behnke's Nurseries Co., 11350 Baltimore Ave., **(301) 937-4032**

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Please send ad copy/articles to the editor:
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Editorial by Jules Koetsch

The Annual PBA Auction will be at Behnke's Nursery in Beltsville, Maryland, on May 29th - see the write-up in this issue for details. I checked Cy Mill's 1988 history of PBA and thought it might be interesting to repeat some of the auction's background:

"The first PBA Auction netted $401.95! Held at Capper's Nursery in McLean, VA, on June 9, 1974, more than 200 items were auctioned in a 4-hour session. Jim Newton was the auctioneer.

"In June 1975, the auction was made official as an annual PBA event. A tradition was quickly established in that year for the auctions to be held at Behnke's Nursery in Beltsville, MD. Over 450 items were sold during a 2-day period, bringing in about $2,150 to the organization treasury. Styling demonstrations were conducted between sessions to hold the audience.

"The "Behnke Auction" continues as an annual crowd pleaser. PBA members pitch in as auctioneers while other member volunteers carry trees through the audience and act as bid spotters. Members find the auction to be a convenient place to sell items from their collections and acquire new ones."

It is interesting to note that over the years the Annual PBA Auction has been foreshortened from a 2-day event to a half-day one, and styling demonstrations are no longer conducted. However, the money for an item auctioned off is still divided so that a commission goes to PBA, and the remainder to whoever places the item for auction. No money goes to Behnke's Nursery and PBA is indeed very grateful to them for all the years over which they have graciously extended PBA the privilege of using their facilities for the auction.

Many of us find that after we've been in bonsai a while, starting another bonsai, even just one every year, becomes an

addiction. If you are like me, I can't help trying some new plant material, or trying to replicate some style appearing among those "masterpieces" pictured in bonsai books and magazines. After all, once you've been styling some of your plants for a few years, the urge to create takes hold and you are starting another future bonsai. Low and behold, you have more than you can properly manage.

The following from Monastery Bonsai, March 1999, which sells pots at the PBA show and also the symposium, is apropos.

"After the auction last year, many people thought we were going out of business. Others thought we had sold off most of the collection. In fact, most of the trees we sold were not yet finished bonsai, trees we had been preparing to put into our collection. We cut back on the collection simply because it had become a great burden for us, an almost full-time job in itself. We are working on a way to display more of our collection. Many of our best pieces are tucked away in the back or in a plastic greenhouse.

"I would like to encourage you to study your collection. If you have more trees than you can care for, perhaps hire a friend or neighborhood kid to help you care for them and enjoy them. Otherwise, you might give some of them away as gifts to children, grandchildren, neighbors and friends. Perhaps you could give a bonsai class to neighborhood kids and give the best student a collection piece as a prize.

"Whatever you do, please don't let bonsai become an addiction. If it's already gotten out of hand, cut back so that you have time to display your trees well and around your house. Then make time to *put down* your watering can and tools, and just *be* with your trees and let them *touch* you. -- Brother Gerard

Save your prize trees till you cannot care for them anymore. In Japan, the tradition was for the father to pass his bonsai to the eldest son. I remember reading where a Japanese housewife was trapped into the situation of taking care of her father-in-law's trees after he passed away. She despised the bonsai. Don't leave your bonsai to such a fate - remember the PBA Auction. Dennis Hamel, who authored the article on insect control in this issue of *Clippings* was PBA's entomologist before he passed away. In his will, he offered the trees to PBA to be sold at the PBA auction with all the proceeds going to PBA. Now I'm not making the pitch you get in the mail every day to remember one's church, institution, or charity in one's will. Just make certain your beloved trees are taken care of when you cannot give them the care they warrant and deserve.

I want to say how very much I appreciate all the compliments so many of you have proffered since I started as Assoc./Type Editor and Art Director. Becoming Jules' apprentice was what I itched to do several years ago. At the time PBA needed someone to learn from and take over for Jeff Stephanic, I was a coward. For at least a year, I just kicked myself for not jumping in and taking advantage of Jeff's teaching and expertise. Then I pushed my way onto the team as proofreader and learned about e-mail (so I wouldn't have to drive over to Beth's every time an article needed to be grammarized).

When Beth warned us she was going home to take care of family, I knew it was time. So far, it's been very exciting. I learn at least two new things about the process with every issue.

So far, it's a life-changing commitment. I "live *Clippings*" and my usually good-natured husband is adapting. His, and your, positive comments and congratulations have given me a great nudge toward confidence.

Thank you all for this learning, growing opportunity.

Betty Yeapanis, NVBS

See new slate of officers, pg 2, col 1. **A very sincere vote of thanks goes to Jack Wells, Chris Cochrane, and Julie Walker as outgoing PBA officers.**

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Calendar of Events

May

Brookside Bonsai Society

1 1 pm Fertilizer cake workshop with Jim Hughes

9 BBS Show at Mcgrillis Gardens in Bethesda

20 Monthly Meeting Azaleas with Bob Dreschler

Rappahannock Bonsai Society

15 11 am Workshop: Repotting and Styling of Japanese Maple Forrest, $60 (includes tree, pot, soil, and instruction; tree selection for RBS display at USNA (5-13 June).

Washington Bonsai Club

15 *Meeting Time Change* - 10:00-Noon

Baltimore Bonsai Club

23 1 pm Workshop: Bring Your Own Tree conducted by Richard Meszler, T.ofM.: Azalea, Display: Richard Meszler, Mike Ramina

Kiyomizu Bonsai Club

23 2 pm Foliation - Bring trees for discussion.

June

Rappahannock Bonsai Society

5 International Pavilion, USNA, for first day of RBS bonsai display

Brookside Bonsai Society

6 2-5 pm Open House - Dave Hockstein

17 Monthly Meeting - Demonstration with Jack Sustic

26 2 pm Cascade/Semi-Cascade workshop with tropicals with Martha Meehan, $35-$45

Baltimore Bonsai Club

27 Chrysanthemum Workshop by David Garvin, Material fee $5.00, T.ofM.: Yew, Display: Al Iten

Kyomizu Bonsai Club

27 2 pm Styling workshop - open discussion.

Other Goings On

29-31 May,10-5pm VaBS Exhibit, Norfolk Botanical Garden, (757)497-0906. Free.

21-24 October - Atlanta, GA (Kimura) Contact Tony Smith (404) 872-2217, fax (404)875-1464 or hermita@ mindspring.com

Minutes of PBA Board

March 14, 1999

Present: Jack Wells (president), Andy Cook (vice president), Jerry Antel (treasurer), Chris Cochrane, Charles Croft, Lee Earman, Joseph Gutierrez, Bonnie Kobert, Jules Koetsch, Jim Sullivan, Frank Thomas, Godfrey Trammell, and Judith Wise.

The minutes of the January 10 meeting were approved. The treasurer reported a balance of $16,524.02 with $6,331.49 in savings, $52.53 in checking, and $10,000 in a certificate of deposit. He reported there were 251 paid members. Joe Gutierrez suggested that the CD be partially reinvested at a higher earning rate. Jerry Antel will check into this.

Andy Cook presented the plans for the Spring Show, April 16-18. The sales tent will be open from 8-5, and the bonsai display from 10-5. The vendor tent will be set up on Tuesday (Arboretum has approved) and vendors will set up on Thursday. Fifteen vendors have requested space. The display will be set up on Thursday, and the Arboretum has approved the use of the lobby for the educational display. Trees may be brought in Thursday pm or Friday am. Volunteers are needed for demonstrations which will be held outside of the bonsai area (if good weather) and in the Yoshimura center if inclement weather.

The annual meeting will be Saturday at 5:30 pm. Jerry Antel suggested the sale of bonsai pins and envelopes at the show. This was approved.

There was a discussion on labeling of trees at the show and the consensus was to place ID cards in front of the table. There was a question if vendors could do demonstrations. Andy Cook suggested demos on pots, tools, and use of companion plants and plant materials.

Table assignments for the clubs will be essentially the same as 1998, with the use

of the outdoor area at the Mrose center for larger trees as last year. It was suggested that signs to sales and viewing be more visible.

It was noted that the Arboretum will again have a plant sale on Saturday beginning at 9 am.

The nominating committee presented the 1999 slate: Andy Cook, president; Chuck Croft, vice president; Jerry Antel, treasurer and publicity; and Judy Wise, secretary. The educational vice- president slot is open.

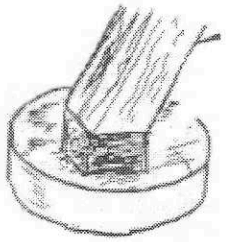
Jules Koetsch briefly discussed *Clippings* and the possible once or twice a year listing of sources of bonsai materials and vendors.

Arrangements for the Fall Symposium were presented in a brochure from Keith Belk (unable to attend). Since Keith was not available and only one copy of the information was available, it was suggested an executive committee meet with Keith at a later date to discuss theme, speakers, and cost.

The next meeting will be the Annual Meeting on April 17, 1999, at 5:30 pm.

Anti-Ant/Slug Device

Cut plastic gallon container so that height of the side is slightly less than height of a brick lying flat, insuring water will overflow before touching bench leg.



Here, you see bench leg raised by a brick surrounded by a moat to foil ants, slugs, snails, millipedes, caterpillers, etc.

JAL/BONSAI CONTEST

Japan Airlines is sponsoring a "World Bonsai Contest '99" in a competition for growers of bonsai. The competition is in conjunction with the annual Japan Bonsai Exhibition slated for Kyoto, 20-24 November.

Grand prize will be two JAL Executive Class tickets to Japan to attend the award ceremony.

Color slides/prints of the bonsai entries must be submitted to a judging panel in Japan by July 31.

Out of all the entries, 100 will be chosen for display at the exhibition.

For details, go to JAL's web site at http://www.jal.co.jp/bonsai/. Entry forms can be obtained from JAL sales offices.

Wounds and Cuts

Always begin sawing a branch from the underside first. Then saw from the top. This will allow the branch to be removed without tearing the bark below the branch or splintering the branch. Always use sharp tools to avoid a rough cut in the bark. A rough cut tends to trap moisture which encourages rotting, and is an attractive place for disease micro-organisms to lodge.

If a cut is large, it is a good idea to seal the wound because:

1. The cells are sealed, thus stopping excess loss of sap;
2. The tree is protected from infection caused by fungi;
3. Die-back is discouraged, as the cells close to the cut don't dry out, and sap is able to circulate right up to the edge of the wound;
4. Callusing of the bark is more rapid.

In recent times, there has been much controversy that some dressings are useless while others may even be harmful. The main argument seems to be that trees have built-in systems to cope with the healing of wounds; and wound dressings are merely cosmetic.

This may be true, but a parallel situation can be seen with human beings. We also have in-built systems to heal wounds, and when we receive small cuts, we rarely bother and simply allow our bodies' systems to take care of it. However, we give our bodies assistance, for example, by getting stitches. Thus, with trees, small cuts are more capable of taking care of themselves, while larger cuts may need a little help.

One of the best treatments for cuts made on trees is to rub the wound immediately after it is made, with clay and spit. The Chinese have used this technique for centuries. Aesthetically, it makes the cut less noticeable, but it also has a couple of practical advantages. If the clay is rubbed into the wound, the abrasive action brings the "wound hormones" to the surface, thus assisting the healing process. Also, it was recently found that there is a soil fungus which acts as a parasite on decay-causing micro-organisms.

Some other methods for sealing large cuts are: grafting compounds, water-based glue, egg-white, acrylic paints (can be color matched), face creams, aluminum duct tape (recently found to facilitate healing because of its properties of reflecting heat from the wound and holding in the tree's own moisture).

Another interesting discovery is the finding that if some of the freshly cut tree is pulverized and the mixture applied to the wound, healing is more rapid. Apparently, the wound hormone, ***traumatic acid,*** is thus in a more concentrated state. Also, if the fresh wound is rinsed with water, the cell division which promotes healing is slowed down!

All food for thought! Think about it!

4/23/99 - Bonnie Kobert (NVBS)informally presenting John Naka her sculpted clay bust at the NBF annual board meeting in the Yoshimura Center. The board voted to have the bust cast in bronze for display in the Bonsai and Penjing Museum.

Poetry Corner

The movement of the five sonnets is established immediately upon reading the second in the series, printed here. If you have last month's issue, you may want to fish it out and compare this poem to the previous one, "Chokkan," to see the similarities in form and rhyme, as well as the difference in shape and strictness of form. This poem explores freedom and beauty within the rigors of formality, a concept as familiar to bonsai as it is to poetry, but examines imperfections as a source of individual beauty. I had in mind the jin and shari I've seen, and how they interrupt the monotony of expected perfection with character and ideas of mortality.

2. Moyogi: Informal Upright Style

If the invisible limbs that hold the clouds
fleshed into soft form, the shape
would be in this style.
Often cliched,
the accommodating nature of this tree attracts
those who view its rules as less than strict.

Nothing could be further from the truth:-
This sort must be 'alive,'
a balanced picture
that may, if you must, include fruit,
flowers, but never to the point of being precious.

Avoid the typical.
Find a tree with demons:
a knot, a dead branch, something delicious
in its deformity, at odds with the green,

a perfect backwards-elbowed monstrosity;
exceptional, under the usual heavenly canopy.

April's air stirs in
willow leaves . . . a butterfly
floats and balances
Basho

Not a haiku--
BUT--

Only after the last tree has
been cut down
Only after the last river has
been poisoned
Only after the last fish has
been caught
Only then will you find that money
cannot be eaten.

-- Cree Indian Prophecy submitted
by Janet Lanman, BBS

Bones Eye

by Peter Chowns, 1992 - Oyama Bonsai Kai, South Africa
(courtesy of Andrew Fields, Bonsai Zimbabwe)

This method of growing trees in impossibly small containers originated in Japan, home of the impossibly small. The reason for growing them is obvious. In Japan, there are only a few gardens which are large enough for trees, so most trees are found in the Japanese equivalent of a window box.

When a "Bones Eye" grows too big for its window box, it is sold to an American, where they have the largest "Bones Eye" in the world. Because nobody but the Japanese can say why trees have to be in impossibly small containers, it has been made a Japanese art.

Another art is the translation of the rules governing "Bones Eye." These rules were written by someone called Confusion. Without rules, anyone attempting to grow "Bones Eye" would probably end up with a "tree-in-a-pot." This often happens anyway. All "Bones Eye" must have a front and a back, so that they can be looked at sideways. Trees are never planted in the center of a pot, because that's where the Tree God sits. To prevent the Tree God from falling through the hole in the middle of the pot, a piece of gauze is put over the hole.

There are styles in which the tree must be grown in order to conform with the art of "Bones Eye," but as the tree can't read, it will usually grow in the style you don't want. This is known as "Adversitree." At this point, it is as well to know that not all trees are suitable subjects for "Bones Eye," only those trees belonging to somebody else who has achieved the miracle. When *you* try with the same species of tree, *you* get a "tree-in-a pot."

In order to assist you in getting the tree of your choice into the style of your choice, several oriental tree tortures are available. These range from the mild tortures of wiring and clamping, to the ultimate torture wrapping in pantyhose. Trees have been known to become leggy after this last torture.

Trees can be grown on rocks, slates, old cakes, etc. As the old proverb says "If it moves, salute it, if not - plant a tree on it." For some trees, the best style is under a rock. This style serves two purposes; firstly, it gives maximum shade to the tree and, secondly, it provides a second answer to those people who, when asked "What do I do with this tree?" only had one answer.

Good news for everyone with lots of trees and only one pot: More than one tree can be planted in a pot. It also means that you can have a forest in your window box for the price of one pot. The pottery trade in Japan is actively engaged in trying to get the rules changed to read: "One tree, one pot."

The Guinness Book of Records is waiting for the first record of the most trees in a pot. Only acknowledged trophy hunters are eligible.

The best way to start in the field of "Bones Eye" is to join a Kai (club). This is the name for a collection of "Bones Eye" addicts. The Kai normally congregates once a month to listen to a sermon given by a Kai priest. The position of priest is usually given to someone of oriental appearance and the ability to talk in a language that sounds like Japanese. NOTE: If a Kai is fortunate enough to have a Japanese member, he is elected for life.

When a group of addicts is established, they start comparing trees to see who has achieved the miracle and who has "trees-in-pots."

Once or twice a year, the Kai will show their best miracles to the public. This serves two purposes. The show will attract new members to a Kai, and a Kai can sell all its "trees-in-a-pot" to the public.

These extracts are from the book "The Miracle of Bones Eye," written by an Armenian camel driver who studied Japanese under an American sailor. Any similarity between the rules presented here and rules read elsewhere would indeed be a miracle.

This article is reprinted from *Memphis Bonsai*, Vol G1, No. 4, '95.

Moss !!!!!

by Dave Bogan, from the April 1998 *Newsletter of The Greater Evansville Bonsai Society*

With repotting, cleaning, pruning, and getting your trees ready for spring, moss will play a very important roll. Moss on a *bonsai* planting serves several purposes. [Do not allow moss to grow on roots,etc.] First, it adds a natural dimension to your planting, and makes it all come together. It also helps hold your soil in place, and covers up some unforgiving areas. After repotting, some roots breaking the surface can be covered with chunks of moss to retain moisture. Keep in mind that you should never totally cover your soil area with moss. It may look pretty to you, but it can be harmful to the tree. Moss will slow down moisture from evaporating from the soil, but it will also slow down water trying to penetrate the soil. It *also* prevents a natural air exchange within the soil.

Now, with this in mind, you should plan how and why the moss is installed. Use the moss next to roots to emphasize their character or hide imperfections (cuts, or roots sitting a little too high on top of the soil). You also want the moss to be placed sporadically on the open soil areas. You want it to serve a purpose and also look natural. With practice, you can lay slabs of moss like turf with barely perceptible joints. Usually, however, this easy way out is not very successful. The little sections of moss tend to curl on the edges.

A more natural coverage is achieved by growing your moss from seed. Moss spores are too tiny to see with the naked eye. A section of moss only an inch square can contain millions of seeds which remain viable long after the moss withers and turns brown. All they need to return to their lush green color is moisture. If you like this method, gather moss whenever an opportunity presents itself. Allow the moss to dry out totally, then crush it into a fine powder. Now, dust it over your soil in areas that you would like to have moss. Provided it is kept moist, the moss will start to sprout/germinate within two weeks. A good advantage to this method is that the moss will conform to the existing surface of the soil, following its contours. *You can't water from overhead as you typically do.* Watering from above will just float the spores out. To eliminate this problem, you must either water from below (immerse the pot) or cover the soil with a cloth (cheesecloth works great). If you use a cloth, keep in mind the moss will grow through the cloth and you must then trim away any noticeable areas not covered by moss.

Another method which gives quicker results but not such a natural look is as follows: Gather the moss while its still green. Remove all soil and place it into a bowl. Now add water and mush the whole mixture into a paste. This paste is then applied to the soil using a knife or spatula. This method will tend not to wash out as easily, but you must still be careful.

In the the first year, applied moss will never look totally natural. It takes at least one year for the moss to settle in and become part of the landscape. Leave this moss on your soil and next year you will notice it will look more natural.

Another alternative is to grow your moss on a standard cookie sheet then transfer it to your trees. Again, it takes a couple of years till it will look totally natural.

Just keep in mind, if your moss turns brown, give it some time. It's not *necessarily* dead and may green up again.

Moss Collection

Since bonsaiists have difficulty identifying their mosses by comparing them to flat photos in books, we'd like to improve our research abilities. We're envisioning a simple container divided into sections, containing different varieties of local moss.

Does PBA have a "moss expert" willing to put together a permanent display of local moss varieties. We have already scouted a high-use home for the display where other PBA volunteers will be coerced into caring for it.

MONTHLY CARE TIPS for MAY

The following tips have been compiled from 4 Japanese bonsai magazines and Yuji Yoshimura's book.

If you do not use fertilizer balls you can consider applying the fertilizer of your choice during that time. One application of fertilizer balls is expected to be good for about 30 days. If a gap of more than a month appears between "apply fertilizer balls"in the schedule, one may consider holding back on applying any fertilizer during that time period.

Wherever the words push back appear, it signifies that one reduces the length of new foliage to maintain the tree's shape. Push back is a very important principle to keep the bonsai from becoming too leggy and loosing its shape. Ask members of your bonsai club to help you if you have questions about how to push back for your species of plant.

CONIFERS

BLACK PINE: Water up to 3 times per day after May 10th. Note that the Japanese do plant black pine in a soil mix, usually sand, which does not hold water for too long a period of time. Gage your watering based on your soil mixes ability to hold water and weather conditions. Wire and repot anytime up to the 10th of the month. Repot once every 3 to 4 years. Replace during the beginning of the month fertilizer balls put on last March.

CRYPTOMERIA: At the beginning of the month begin watering twice per day including the leaves. Wiring can be done up to the 10th of the month after removing previous wire that is digging into bark. Wiring and repotting can start after the 20th of the month. Repot once every 2 years. Thin out the new growth, push back, after the 10th of the month. Apply fertilizer balls during the middle of the month.

HEMLOCK: Water whenever the top of the soil appears dry. Pinch back new growth. Apply fertilizer balls during the middle of the month. Start plucking new growth, push back, at the beginning of the month. Continue this as new growth gets to the appropriate length for reduction.

HINOKI: Water whenever the top of the soil appears dry. Apply fertilizer balls during the middle of the month. Wire anytime during the month. Make certain no existing wire is biting into bark. Repotting can be done any time during the month. Repotting is done every 3 years. Pluck, push back, new growth when it gets too leggy.

LARCH: Water whenever the top of the soil appears dry. Start push back during the last 10 days of the month. Apply fertilizer balls during the last 10 days of the month.

NEEDLE JUNIPER: Water twice per day including the leaves. Apply fertilizer balls during the first 10 days of the month. Repotting can be done during the month. Repot every 3 to 4 years. Wiring can be done anytime after the old wire that is digging into the bark has been removed. After the 10th of the month start plucking, push back, new growth.

SAWARA CYPRESS: Water whenever the top of the soil appears dry. Start plucking , push back, new growth at the start of the month. Apply fertilizer balls during the middle of the month.

SHIMPAKU (Sargent juniper) : Water twice per day after the 10th of the month and at the same time water the foliage. Wire/rewiring can be done anytime during this month. After the 20th of the month start plucking or push back new growth and remove dead growth.

SPRUCE: Water 2 times per day. Replace fertilizer balls during the last week of the month. New growth will begin to appear. Push back the new growth using the "rule of thirds." The new growth along the axis of a branch should have 1/3 of the new length removed. Side members of the same branch should have 2/3 rds of the new growth removed.

WHITE PINE: Water twice per day. Apply fertilizer balls during the last 10 days of the month.

YEW: Water as needed. Repotting can be done during the first 10 days of the month. Repotting need not be done for 3 years. Apply fertilizer balls during the middle of sthe month. At the end of the month pluck, push back new growth so that branches are arrowhead shaped when viewed from above.

WARNING: From the USDA Integrated Pest Management Tips for May: Avoid using shredded hardwood bark mulch on yews. As it decays, it often releases toxic quantities of copper and manganese. Yews are very sensitive to these metals; affected plants are stunted, may turn yellow, and in severe cases,

small branches may die. Use pine bark, chopped leaves , or another mulch and limit its depth to 2 inches.

Another member of NOVABONSOC and I lost yews because hardwood bark was in the organic mulch incorporated in our soil mixes.

DECIDUOUS
(Non-fruiting/non-flowering)

BEECH: Water twice per day. Prune, push back new growth. Apply fertilizer balls during the first 10 days of the month.

CHINESE ELM: Water as needed. Replace fertilizer during the first 10 days of the month. Prune sprouts and branches, push back new growth.

GINGKO: Water as needed. Replace fertilizer balls during the middle of the month. At the end of the month remove unwanted branches and unwanted ends of branches.

HORNBEAM: Water 2 times per day. Prune branches and sprouts Pluck undesireable sprouts up to the 20th of the month. Before the 20th of the month remove all wire since growth will be so rapid during the following weeks and the wire is bound to leave no-no wire marks. Push back new growth throughout the month. Replace fertlizer balls during the middle of the month.

JAPANESE MAPLE: Water twice per day. At the beginning of the month unwanted growth can be removed including branches.

TRIDENT MAPLE: Water twice per day. prune back unwanted lengths of branches and push back new growth. Apply ferilizer balls during the middle of the month.

WEEPING WILLOW: Water once per day. Replace fertilizer balls during the first 10 days of the month. Prune during the first 10 days of the month.

WINGED EUONYMOUS: Water as needed. Replace fertilizer balls during the last 10 days of the month; and during the same timeframe, push back new growth and prune branches.

Flowering/Fruiting Plants

CHERRY: At the beginning of the month begin watering 3 times per day. Replace fertilizer balls during the middle of the month. Prune unwanted lengths of branches and push back new growth after the 10th of the month and wire.

CRAB APPLE: Water twice per day. Apply fertilizer balls sometime during the middle of the month. Rewiring can be done after the 10th of the month.

GARDENIA: Water as needed. Wire during the middle of the month. Apply fertilizer balls during the last 10 days of the month.

HOLLY: Water once per day. Wiring can begin in this month. Apply fertilizer balls during the middle of the month. Prune unwanted branches and push back new growth.

PYRACANTHA: Water once per day. Wiring can be done up to the 20th of the month. Remove ugly and dead branches after the beginning of the month. Fertilize during the last 10 days of the month.

QUINCE: Water 2 times per day until the 20th of the month . Then water 2 to 3 times per day. Apply fertilizer balls during the middle of the month. Prune and wire starting after the 20th of the month.

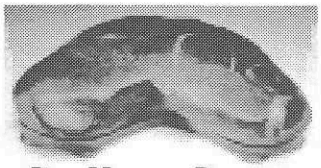
SATSUKI (azalea): Water once once per day. Blossoming occurs during the beginning of the month. Remove the spent blossoms. Prune unwanted branches and push back after the blossoming is over - sometime during the middle of the month and wire at the same time.

UME (Japanese flowering plum or apricot): At the beginning of the month water 2 times per day and after the 20th water 3 times per day. Prune and wire after the 10th of the month. During the middle of the month, apply fertilizer balls.

WISTERIA: Water often. Start wiring during the beginning of the month. In the middle of the month, apply fertilizer balls.

Ernie Kuo, California

What does a tree from a West Coast collection have to do with a suiseki from an East Coast collection? Watch this space for the real skinny.



Jim Hayes, Penn.

The Beauties and The Beasts
or
Native Deciduous Bonsai and Their Insect Pests

by DENNIS R HAMEL

[Ed. Note: The following, in part, is a transcript of the lecture which Mr. Hamel gave at the 1983 PBA Fall Symposium. It should be pointed out that in reading Mr. Hamel's lecture you will find he does not believe in preventative spraying or dusting. This must be left to the reader's discretion since using a pesticide in anticipation of a pest attack may unduly sap the tree's strength, as well as kill predators of the pests - when, after all, no pests may eventually strike. This must be weighed against applying a pesticide after the bonsai have been partially or severely damaged from pest attacks. The Japanese (as well as a number of American bonsai professionals) generally schedule the applications of pesticides to correspond to the periods when the pests are expected to put in an appearance.]

"I know you're here because you want to know about the "Beauties and the Beasts." Beauty, to my way of thinking, is a fine bonsai. Beasts are what often come to feast! Today, I will talk to you primarily about the latter— beasts of the order Insects. You see, as mentioned in the introduction, I come somewhat qualified to talk to you about insects. I am an entomologist: I study insects. When I was growing up, my mother told me there were three kinds of sex— the male sex, the female sex, and the insects! Unlike Alfred Kinsey, who undertook in-depth studies of all three, I have concentrated on the latter. So today we're going to talk about "The Beauties and the Beasts" or, as I have alternately titled my presentation, "Native Deciduous Bonsai and Their Insect Pests."

"As you know, during this symposium we are focusing our attention on five native species which can be encouraged into suitable bonsai specimens: apple, beech, hawthorn, hornbeam, and maple.

"During this part of the program, we will see and discuss pests which are often a problem on those species; methods that can be used to control them; and benefits which sometimes can accrue from what we often consider serious pest conditions. When discussing control alternatives, I will discuss tactics in 3 main categories: Chemical, Manual, and Biological. In discussions of the Chemical alternatives I will use common names of active ingredients not trade names. **(A crossover to trade names will be given in the article which follows this one.)**

"When dealing with my bonsai and potential pest problems, I follow the 3-M Principle. I'd like to encourage you to do the same. My three M's are Maintenance, Monitoring, and Movement.

"By Maintaining my bonsai-growing area clean, free of dirt, leaves, and decaying vegetation, and by providing for a free flow of air, I find that insects are less likely to find safe haven among my specimens. Also, by maintaining my plants in a vigorous and healthy condition, they are better able to withstand the onslaught of pests.

"Monitoring bonsai plants for signs of insects and diseases is the second important M. Frequent inspections are essential and not time consuming if done in conjunction with the other required tasks of bonsai culture, such as watering, pruning, pinching, trimming, and repotting. During Monitoring, some insects will be easy to see, others not so easy. Later, I will describe some common pests that you may encounter. The reason that I have chosen the pests that I have is because they all have the potential to be pests on the plant species under discussion at this symposium.

"Movement is my third important M. When I find a bonsai that is infested with insects, my first action is to move it away from other bonsai to prevent the pest infestation from spreading. Moving a plant allows you to isolate the problem and take whatever measures are appropriate until control has been achieved. When this occurs, then the 3M Principle is practiced in reverse. Move your plant back. Monitor it closely, and Maintain it as before.

"Another important principle in pest management is that in order to manage pests they must first be present and you must be

able to identify them properly. Frankly, I find maintenance spraying with pesticides unconscionable when no pests are present. Spraying by the calendar (for example, on a weekly or monthly schedule) in my opinion neither benefits bonsai nor the environment. Pesticides have their place in any pest management program, but should not be relied upon exclusively. Say, for example, that you have a beautiful maple bonsai. Regular pesticide treatments of a well-maintained and adequately monitored tree would, I believe, do more harm than good. However, should a pest such as larvae of the gypsy moth occur on a tree, pesticides might be appropriate.

"But let's look at all of the alternatives. Besides the use of available pesticides such as acephate, carbaryl, diflubenzuron, and trichlorfon to control the gypsy moth, there are other alternatives such as:

Chemical: acephate, carbaryl, diflubenzuron, trichlorfon

Manual: burlap banding, hand picking, male trapping

Biological: bacteria, viruses, parasites, predators

"This latter tactic, the use of native, naturally occurring predators and parasites, is one of the very good reasons why pesticides should not be used indiscriminately: pesticides can kill beneficial organisms as well as target pests. The gypsy moth, for example, has a number of natural enemies, which should be encouraged, or at least certainly not destroyed through indiscriminate pesticide applications. Adults like the male gypsy moth are eaten by various natural enemies like birds, rodents, and other insects. So, too, are gypsy moth larvae, which are attacked and eaten by the colorful calosoma beetle called the "caterpillar killer." **(Note: sketches of the most likely insects and pests to afflict a bonsai in the Washington, DC, area are included in the follow-on article.)** Others are parasitized by flies like the tachinids. These are beneficial "beasts," and they should be recognized and protected.

"But let's say you're on vacation, and your friends don't know much about the gypsy moth or the care of bonsai. Should they be prepared for a verbal onslaught from you should you return to find that the gypsy moth has done a leaf-pruning job on your tree? Or can you accept the fact that Mother Nature is working with you and has done a thorough leaf-trimming (a la gypsy moth gourmet), soon to be followed by a fine crop of smaller leaves? Would the end result be much different from your own leaf-trimming practices?

"At various times of the year, other caterpillars can have similar effects on nearly all kinds of native deciduous bonsai. Spring cankerworms and fall cankerworms, as indicated by their common names, are the harbingers of summer and winter, respectively. Their depredations on a bonsai could be most disheartening to the potential exhibitor in a seasonal show. Likewise, bagworms and tent caterpillars can be devastating to bonsai.

"Control alternatives for all of the above caterpillars are similar to those described for the gypsy moth. They include:

Chemical: acephate, carbaryl, malathion, trichlorfon

Manual: hand picking

Biological: bacteria, predators, parasites

"Always remember that if you choose pesticides as your control alternative, protect the environment. Use pesticides safely by following label directions.

"Caterpillars, which are leaf-chewing insects, are but one kind of pest of native, deciduous bonsai. Other leaf-chewing pests include beasts like the colorful Japanese beetles, and the more drab June beetles. During their immature, as well as their adult lives, these insects can be very destructive to plants. Grubs of these beetles live in the soil and feed on tree roots while the adults, upon emergence from the soil, feed heavily on the leaves. Control of grubs is best conducted by either physically eliminating them during soil preparation; at the times of repotting; or by adding milky spore disease to soil to prevent their development. Adult beetles, although they can be controlled by pesticides, are easily handpicked. Another method of protecting valuable bonsai is to cover them with netting at critical times.

"Another leaf-altering pest that I have encountered on my own bonsai, as well as on those of friends, is the leafcutting bee. The leaf-cutting bee is unique in that it does not

consume the leaves it collects, but rather it forms them into cylindrical leaf chambers. It is within these cylinders that the female deposits a bit of pollen upon which she lays an egg. From this egg, a new bee will develop. Anyone whose bonsai, especially local red maple, has leaves with circular and oblong cutouts should surely suspect the presence of leaf-cutting bees. Control is not recommended, since this insect is much more beneficial (from a pollinization standpoint) than the loss of a few leaves. If it is essential that a tree chosen by leaf-cutting bees be protected, it should be moved to another site or covered with netting until the bees' brief leaf collection period is over.

"More annoying to me than most of the pests discussed so far are snowy tree crickets. Related to grasshoppers, these lime-green to brownish tree climbers are not only noisy at night, but they also feed rather heavily on the upper epidermis of my favorite bonsai. In natural forests, I am unaware of these insects being a pest; but to bonsai growers, snowy tree crickets can cause considerable loss of leaves and plant esthetics. Control recommendations include:

Chemical: Carbaryl, Chlorpyrifos, Diazinon, Malathion

Manual: Hand picking

Biological: Predators

"In addition to leaf-chewing pests of native deciduous bonsai, probably the next most important group are insects that suck leaf and stem juices of trees such as the apple. Examples of this type of insect include the colorful and active leafhoppers. The wedge-shaped leafhoppers hop about feeding on plant sap, often leaving behind leaves that lose color and turn whitish. This is usually followed by a general loss of plant vigor. These hoppers are quite often vectors of plant diseases. Closely related to the leafhoppers are tree-hoppers and much larger cicadas (sometimes called locusts or 17-year locusts). These cause damage not by sucking on plant tissue, but by inflicting branch damage as they lay their eggs. The nymphs of the cicadas, which spend anywhere from 7 to 17 years in the soil, can also damage tree roots. Control alternatives of these pests include:

Chemical: Carbaryl, malathion

Manual: Sticky boards

Biological: Predators

"Also closely related to leafhoppers, treehoppers, and cicadas— but much less active—are aphids, which frequently infest elm bonsai. Sometimes called plant lice, aphids are often overlooked on bonsai since they frequently occur on the undersides of leaves. It is here that they suck plant juices, causing leaves to curl. Aphids also produce a sweet liquid called honeydew. This often attracts ants, and what ants don't eat usually forms a sticky covering on nearby plant parts. Frequently, this honeydew ferments and molds, causing a black, sooty film, which is unbecoming on any bonsai.

"Some species of aphids have rather complicated life histories. Take for example, the woolly apple aphid. Common wherever apple is grown, these aphids overwinter as eggs on elms. In springtime, eggs hatch and the aphids feed on the young elm leaves causing the leaves to twist and curl. The next generation is winged and migrates to apples and hawthorns, where the aphids feed on trunks and branches, often covering them with cottony masses that enclose the purplish aphids. In Autumn, the aphids work their way to the roots, where they often inflict severe injury before migrating back to elms. Control alternatives for aphids include:

Chemical: Acephate, malathion, nicotine, soap

Manual: Hand washing

Biological: Lacewings, lady beetles

"Insect scales are another important group of bonsai pests. They come in two varieties: soft scales and hard scales. All of them are sucking insects that can take on a variety of shapes and sizes and occur on a variety of native, deciduous bonsai. If a plant doesn't respond to watering or unexpectedly wilts, check for scales. Sometimes scales look like woolly apple aphids, as for example the cottony maple scale. The cottony maple scale could also be confused with mealy bugs which also suck plant juices and sometimes occur abundantly along and among the crotches of branches. Control alternatives for scales and mealybugs include:

Chemical:

Manual:

Biological: carbaryl, diazinon, dormant oil,

malathion Q-tips and alcohol Parasites, predators

"We've looked at leaf-chewing insects and sucking insects, but there is one additional group of insects which growers of native, deciduous bonsai must be aware--the borers. Frequently, the larvae of borer beetles are within the bark of like the apple. For example, the larva of the flatheaded apple borer looks like a horseshoe nail. A hint of their presence in collected material is fine sawdust and sap along a trunk or major branch. Uncontrolled, these larvae will cause eventual branch death, with subsequent emergence of metallic-like adult beetles ready to attack other trees. Borers can be controlled by pushing a wire into their holes to crush the larvae.

"Pesticides like lindane can also be used judiciously. Besides insects, there a few other pests that can affect bonsai. Related to insects but having eight legs instead of the requisite six for insects, are the pests known as mites. Taking a variety of shapes, mites are most frequently microscopic. In spite of their small size, they can be quite damaging to bonsai. Their feeding results in the upper surfaces of leaves appearing grayish and finally brown. The presence of fine, silvery webbing between the leaves is also a sign of mites. Control of mites is often difficult, and any infected plant should be isolated immediately to prevent their spread. Control alternatives for mites include:

Chemical: Chlorpyrifos, dicofol, dormant oil, dimethoate

Manual: Hand picking

Biological: Predators

"Due to the fact that we water our bonsai frequently, another group of pests which like moisture and our trees includes the molluscs.

"Particularly troublesome to me, slugs and snails usually feed during the night and evade me by day. Frequently, the results of their feeding are indistinguishable from leaf-chewing insects; but more often than not, the tell-tale signs of a slime trail identify the culprit properly. Control alternatives include:

Chemical: Metaldehyde, methiocarb

Manual: Hand picking

Biological: Ashes, beer, fruit halves

"The final pests I'll bring to your attention are more of a nuisance than a real threat to bonsai. Earthworms, millipedes, and sowbugs are often found associated with bonsai soil; however, they primarily feed on decaying plant material either in the soil or associated with the bonsai planting. Earthworms do cause unsightly castings on bonsai soil surfaces and can block drainage holes; therefore, they should not be encouraged. Likewise, the millepedes and sowbugs, although not directly damaging to bonsai, can deplete soil organic matter, and therefore should not be encouraged. Immersing trees and pots in water for several minutes will cause all of those organisms to seek drier surfaces from which they can be picked and destroyed.

"The pests we've discussed here today can be particularly troublesome to bonsai, but with the variety of control options that I've described, I hope that I've instilled in you the fact that by practicing the 3M Principle of MAINTENANCE, MONITORING, and MOVEMENT, in conjunction with the use of appropriate control strategies, you can practice a concept called Integrated Pest Management. IPM is really nothing more than a conscious decision-making process designed to result in the use of the best control techniques available for any particular situation. Using IPM, you can grow native deciduous bonsai and protect your Beauties from the Beasts."

(Dennis Hamel was a Pesticide Specialist, Forest Pest Management, United States Department of Agriculture, Washington, DC) He was an authority on the use of pesticides in forestry and had lectured internationally on the topic. He received a 1986 Presidential Award for Volunteerism and a 1982 Agriculture Department Superior Service Award. He was a member of the Entomological Society of America and the American Forestry Association. He wrote several books for the Forest Service and contributed articles to such journals as the *American Entomologist*. He was also the author of the *Gypsy Moth Workbook*, a publication for children. Until his death in January 1991, he was a member of NVBS).

<u>branches are arrowhead shaped when viewed from above</u>.

Bonsai Pest Dossier by Jules Koetsch

Combating pests is akin to fighting guerrilla warfare. Often, as pointed out in an excellent series of articles by Vaughn Banting in New Orleans Bonsai, one more often than not doesn't see the pest and must settle for trying to diagnose the type of villain from the evidence,left at the scene of the crime. Therefore, one must be able to correlate damage with species of tree, time of year, locale, and insect enemies or pests. The pests which may attack your tree will be given in Care Tips when they will be a threat. A Wanted File containing mug-shots of the pests listed on the Bonsai Pest S,chedule and their types of crimes (damage). The Wanted File also contains illustrations of "Friendlies" so that they can be recognized and not exterminated. A bibliography for those who wish to read further into the subject.

Prevention vs After the Fact: Dennis R. Hamel in his lecture (see PBA Newsletter Volume 14, No. 1, Jan. 1984) indicated his strong aversion to using pesticides on a preventative schedule basis To repeat his objections: Pesticides can kill predators as well as pests and even a healthy tree may lose some vitality when subjected to frequent applications. Some plants can be given the coup de grace with one application of a specific pesticide. **Always read the labels on pesticides to determine what species they can be used on**.

However, once again the damage may be the first sign that pests are at work. True, daily monitoring will cut down the probability that the marauders will get away unobserved—especially if they stay like "The Man Who Came to Dinner;" e.g., aphids, scale, mites, etc. However, there are the "night fighters" such as slugs which prowl only at night and hide in dark and shady places during the day. If you don't see any insects responsible for the damage in daytime, you will have to check after dark. Hence, one is faced with the dilemma of acting before or after the "crime." The Japanese nurserymen as well as a number of this country's bonsai masters use the preventative spraying approach.

Preventative Approach: The time of application of a specific pesticide must just precede the expected onslaught of the enemy. Seasonal variations can change the timing. Also rain can wash away or dilute the effectiveness of a non-systemic pesticide. Systemic pesticides such as Orthene and Derol are absorbed by the plant and thus provide an extended period of time in which they are effective.

Winter Treatment and Dormant Oil: The Japanese schedule one treatment of insecticide during the winter months—mainly just before putting the bonsai away for winter storage. This should be done prior to placing the plants under any cover, including a greenhouse or coldframe, so that the overwintering pupae, spider mites, scales, etc., are exterminated. The Japanese prefer to use lime sulfide, while dormant oil is frequently employed in this country. The name "dormant oil" implies that it is only used when the plants are dormant.

Pesticide Application: *Protect Yourself!* In this matter, try not to breathe in the insecticide or have it contact your skin. Ruth Lamanna always dresses in full combat attire such as face mask, protective eye goggles, kerchief, hat, rubber gloves, and long-sleeved blouse.

Read the Instructions: They describe *how to mix and apply* the pesticide. Some bonsaiists advocate using an insecticide at *half-strength*. They indicate the *frequency* of application and *time of application* for a number of pests. They describe *what pests* and on *which trees* the pesticide is effective. What they may fail to do is to detail the pests on which they do not work and the plants they should not be used on. In this instance, *Malathion is not to be used on Japanese maples.*

Time To Apply: Do not apply insecticides in the heat of the day. Apply them in the early morning or late afternoon.

All Purpose Mix: The Brooklyn Botanic Garden "Gardening Without Pests" offers a multipurpose spray mixture which can be applied at regular intervals throughout the season. Mix:

Sevin 2 tablespoons (beetles, caterpillars, leafminers, plant bugs, some scales)

Kelthane 1 1/2 teaspoons (mites)

Malathion 4 tablespoons (aphids, leafminers, mealy bugs, whiteflies, scales, lace bugs)

Zineb 1 tablespoon (fungus diseases) to one gallon of water. Use only wettable powders in making the mix.

Protect the Roots: In applying insecticides, insure that none drips onto the soil to reach th e roots. Cover the surface of the soil with plasticor paper towels, or hold small plants by tilting them so the spray does not hit the soil. Nematodes for the most part are considered to be transported by infected soil. If you don't use Terra-Green or Turface mixed with Gran-I-Grits as a sterile soil mix, you can sterilize garden soil by spreading it out in a thin layer, and exposing it to full sun for a number of days; or put it in an oven for 2 hours at about 180 deg F.

Nematodes: Pine Wilt Disease is due to a nematode transmitted by the pine sawyer beetle. (See Nematodes in the Wanted File. Dennis R. Hamel deserves a big vote of thanks for supplying the information.)

Manual Methods: Dennis R. Hamel's lecture in this issue does an excellent job of describing manual methods which in some cases really are preventative. Screens or cheesecloth can prevent certain insects from reaching the plants. Certain pests like snails, slugs, and gypsy moth larvae can be kept off bonsai tables by placing the legs on half-bricks inside the bottoms of gallon plastic containers. Water then forms the protective barrier—see the illustrations.

Plant Health: It seems that pests, somehow or other, detect which plants aren't healthy and like the wolves attacking caribou, single out the weaker ones for the kill. Healthy plants not only can withstand an onslaught of pests better than weak ones, but may be able to build up an immunity that the weaker ones cannot. Therefore, keep your plants as healthy as possible.

Conclusion: It has been said that man has never been successful in fully eradicating any insect species from our planet. Some feel that the insects will eventually be dominant in the world, but then again nature seems to balance out things. Readers are encouraged to comment in any way they wish on the subject matter. In fact, any timely warnings as to what pests are attacking your bonsai at any time will be welcomed. This can be put in Clippings as an alert.

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In answer to the request for info on items being readied for the **PBA Auction, 29 May,** I found this e-mail waiting to greet me one morning this week.

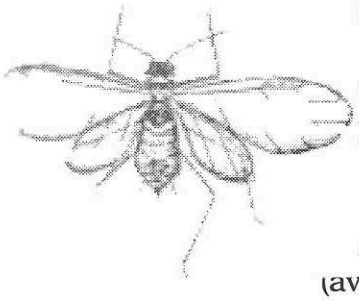
b.y. 

Hiya Betty!

I'm planning to bring to the auction:
A small Budda's belly bamboo bonsai
A container of Budda's belly bamboo (non-bonsai)
A Japanese maple group planting
At least one bougainvillea, bouillabaisse, or however one spells it.

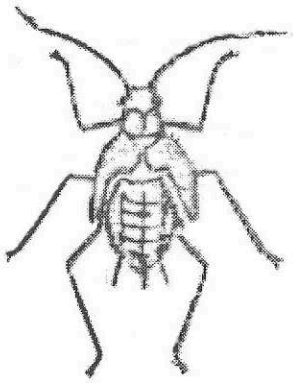
Get ready. There'll be competition.

APHIDS or PLANT LICE



Adult

Evidence: Aphids are visible with flies on plant
Size: Nymph 0.2 in.
Adult body 1/4 in.
Color: Green to brown to black
Pesticide: Cygon, Derol,
Diazinon,Malathion,
Orthene , Spectracide



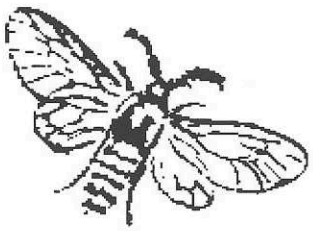
Nymph

Aphids, or plant lice are small (average 0.2 in.) soft-bodied insects which feed on plants by sucking fluids or sap. They pierce stems, leaves, roots, and fruit with the slim, needle-sharp stylets in their beaks. In abundance, aphids may cause leaves to curl or may stunt a plant's growth and stall its production of flowers or fruit. Eventually the plant may die. Aphids also introduce fungus, bacterial, and virus diseases that can be as damaging as the aphids. Aphids expel from the end of their abdomen a sticky, sweet substance called honeydew, a favorite food of some species of ants. These ants move the aphids to productive plants and take them into their nests below ground to protect them at night or when the weather is bad. Black molds grow on honeydew that drops to the ground beneath the plants where the aphids are feeding.

In a typical life cycle of aphids that live in temperate climates, Winter is passed in the egg stage, glued to the stem or other parts of plants. Nymphs that hatch from the eggs the following Spring grow rapidly to become wingless adults, called stem mothers. Stem mothers give birth to young, holding the eggs inside their bodies until they hatch. Within about a week these aphids produce young, in a similar manner. More than a dozen generations appear in a short time, forming a feeding cluster on the plant. At intervals, some or all of the young develop wings and migrate to other plants, starting new colonies. In some species, the winged stages settle on plants of the same kind; in others, they always settle on different kinds of plants. In Autumn, males and females are produced, and the females lay fertilized eggs that overwinter. In warm climates, reproduction is continuous.

BAGWORMS

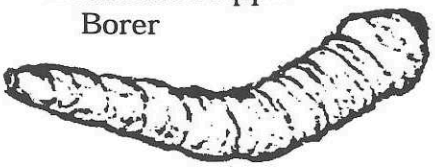
Evidence: Bag made by worms.
Size: Bagworm bag - 1 1/2 to 2 inches;
moth - 1 inch
Color: Brown
Pesticide: Bonide, Cygon, Diazinon,
Malathion, Orthene,
Sevin, Spectracide



Bagworms move about in a bag of tough silk, covered with needles or twigs. Especially damaging to conifers. In late Summer, the caterpillars form pupae inside the bags. Winged males emerge in the Fall and mate with the wingless females, which lay their eggs inside the bag and never emerge. Bags can be picked by hand.

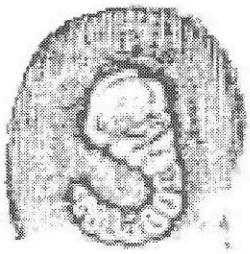
BORERS

Roundheaded Apple Tree Borer

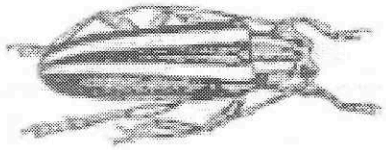


Evidence: Hole leading to tunnel into bark

Size: Roundheaded
Grub 0.9 in.
Adult 0.6 in.
Flatheaded
Grub 1.2 in.
Adult 0.5

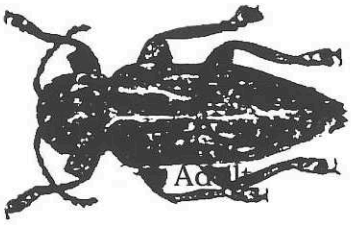


Color: Roundheaded Grub is light tan
Adult has brown and yellow stripes
Flatheaded
Grub light tan
Adult is black



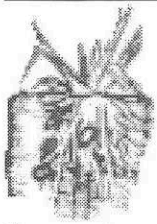
Pesticide: Lindane, Sevin

Roundheaded apple tree borers burrow into apple, pear, and other trees, while the flatheaded apple tree borer attacks nearly all kinds of trees and shrubs. Grubs pupate in the Spring and emerge in early Summer.

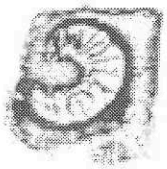


Flatheaded Apple Tree Borer

BLACK VINE WEEVIL

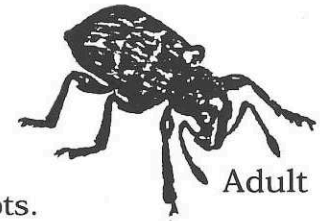


Larva in soil



Grub

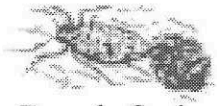
Evidence: Grubs in the soil, larvae on the roots, holes in the foliage
Size: Larva 0.3 in; Adult 0.4 in
Color: Larva is white; Adult is black
Pesticide: Possibly Lindane
Manual: Use high pressure stream of water from a hose to clear grubs from roots.



Adult

Black vine weevils are pests of gardenias, azaleas, begonias, spirea, arborvitae, rhododendron, and many other flowers and shrubs. The larvae first feed on the root hairs of the plant and then move on to the larger roots, stripping them of bark. The grubs hibernate in the Winter, feed again on the roots in the Spring, then form pupae and emerge as adults in early Summer. The adult weevils are active at night, eating foliage for about a month before laying eggs in the soil.

CANKERWORMS



Female Spring Cankerworm laying eggs

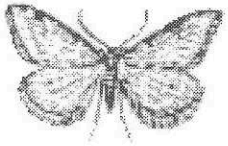
Spring Cankerworm

Evidence: Silk threads, holes in leaves

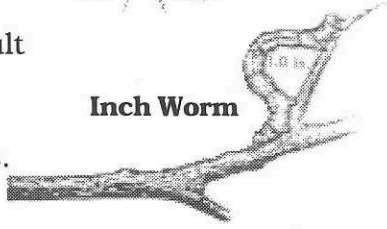
Size: Worm is 1-inch long (inchworm)
Color: Lime green
Pesticide: Bonide, Orthene

Cankerworms eat leaves of trees and shrubs, often defoliating them. Adult moths of the Spring cankerworm emerge from the pupae in early Spring. Males are winged, females wingless. As soon as they hatch, the Spring Cankerworm larvae move to the leaves, which are usually just coming out, and begin feeding. After about one month, the full-grown caterpillars drop to the ground and pupate, emerging the following Spring. Fall cankerworms have a similar life history, but the adult moths emerge from the pupae in the Fall and lay eggs that hatch in late Spring.

Fall Cankerworm

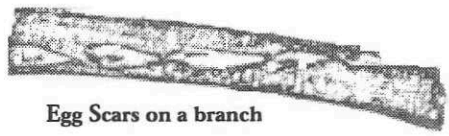


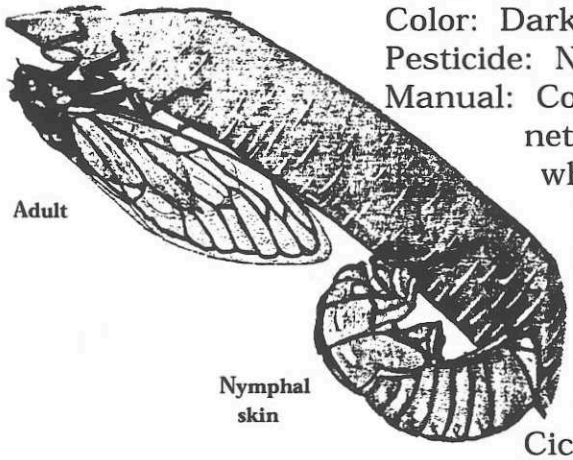
Worm



Inch Worm

CICADA or LOCUSTS Evidence: Egg scars in the bark, whirring sounds on late Summer days
Size: Adult 1-112 inches
Color: Dark brown
Pesticide: None listed
Manual: Cover plant with netting or cheesecloth while adults are on the wing.

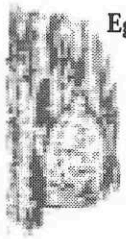

Egg Scars on a branch

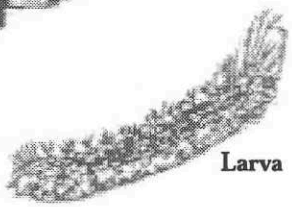

Adult

Nymphal skin

There are about 75 species of cicadas in our region. The young upon hatching either crawl or fall to the ground and commence feeding on the roots. The shortest known life cycle requires 4 years and most are much longer, i.e. 17 years, before the Cicadas emerges as a nymph from the soil by night in the late Spring or Summer.

GYPSY MOTH


Egg Mass


Larva

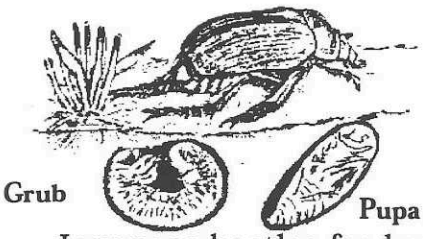
Evidence: Leaves or needles of bonsai completely removed in one day
Size: Larva - 2.0 innches
Moth: 1.5 inch wingspread
Color: Larva - Black with blue and red dots and green stripes.
Moth - Dark brown and tan
Pesticide: Bonide, Orthene (bio-degradable systemic), Sevin.

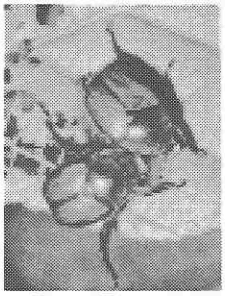

Gypsy Moth

Gypsy moth caterpillars feed on leaves of deciduous trees, conifers, and many other plants. They can completely strip the needles from a pine bonsai in a single day, - end of pine. They form pupae in midsummer and emerge as adults in July and August. The gypsy moth overwinters in the egg stage. As the females cannot fly well, the gypsy moth is spread long distances principally by man, e.g., on cars, trucks, trains, or other vehicles. The caterpillars spin silken threads and may be blown by the wind from nearby trees to land on your bonsai. Egg masses should be destroyed when they are seen. Note they are different from the egg mass of the praying mantis, and should not be confused with the latter (which does not normally lie flat against the bark).

ATTENTION MEMBERS: Please check your packing material from the spring show display. Baltimore member Cyndy Blackburn is missing a small granite suiseki hut stone resembling Fred Flintstone's cottage. Her phone is (410) 747-2818.

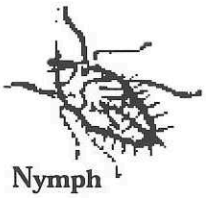
JAPANESE BEETLE Evidence: Skeletonize leaves
Size: Grub 0.5 to 0.8 inches
Adult 0.3 to 0.5 inches
Color: Grub - light brown
Adult - shiny brown wing covers, black head and body.
Pesticide: None listed.
Manual: beetle traps, screen covering.


Grub Pupa

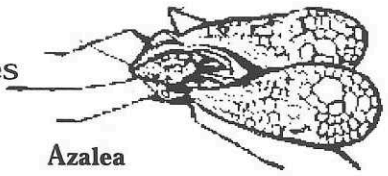

Leaf Damage

Japanese beetles feed on the foliage of many kinds of shade and fruit trees, and also destroy fruit. Many beetles congregrate on one plant. The grubs are major pests in lawns and greens, feeding on grass roots. In most areas two years are spent as grubs. The larvae then pupate in the soil, emerging as adults in midsummer.

LACE BUGS (Do not confuse with LACEWINGS.)

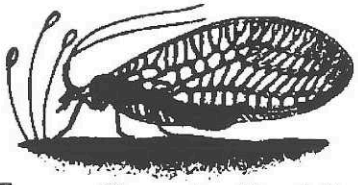

Nymph

Evidence: Dark, shiny excrement on leaves
Size: 0.1 inch
Color: Dark brown to light brown-gray.
Pesticide: Diazinon, Orthene


Azalea Lacebug

Lace bugs, both the handsome adults and the spiny nymphs, suck juices from leaves and stems. They damage ornamentals and also vegetable plants. Lace bugs overwinter as eggs attached to leaves, and in warm weather produce two or more broods in season.

FRIENDLIES


Eggs on filaments with adult

LACEWINGS - White oval eggs suspended from filaments attached to leaves.
Yellowish larvae cocoons
Chartreuse adults

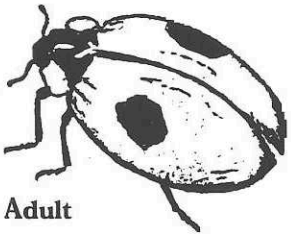

Larva (aka aphid lion, aphid wolf

Larvae suck fluids from thrips, mites, caterpillar eggs, scales, corn earworms, leafhopper nymphs, aphids, mealybugs, and pink bollworms. Adults have similar diet. Most effective when aphid-defending ants are kept in check.

LADY BEETLES - eat aphids, mealy bugs, rootworms, weevils, chinch bugs, Colo. potato beetle, and others
Size: 3/8 inch
Color: Pupa and larva are brown or dark gray with blue or orange spots
Adult - red wings with black spots. Body is black

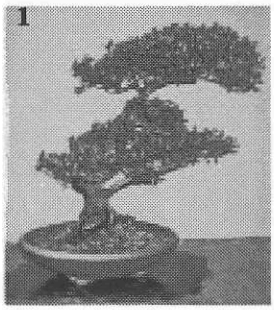

Larva

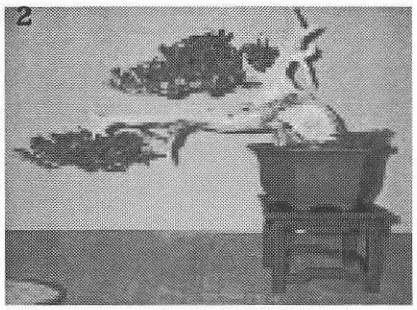

Pupa


Adult

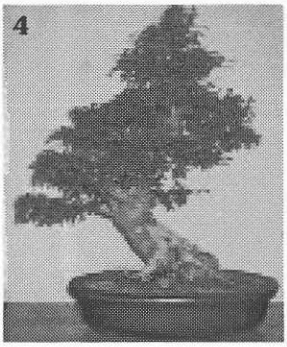
Two-spotted lady beetles are widespread throughout our region and much of the world. It is one of the most beneficial species, living largely on aphids. In its natural position, the pupa hangs downward, usually from the underside of a leaf, with the end of its abdomen concealed by the crumpled skin of the last larval stage. The two spots distinguish it from the willow leaf beetle which has the same coloring but numerous black spots.

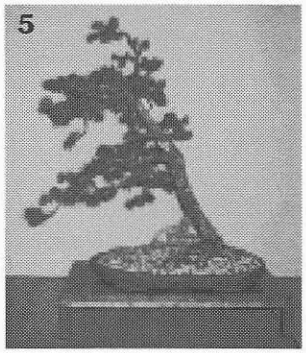
Spring Show - Hope you got to see the real thing. It was pretty darn good. Congrats to Andy Cook and his team of volunteers for making it happen for the rest of us.

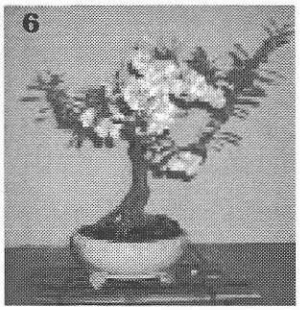




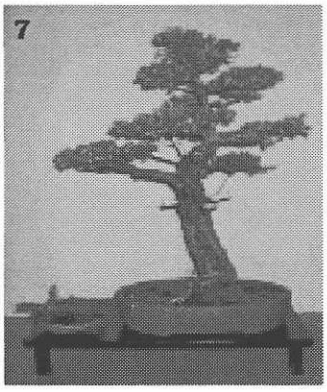
1. Azalea
2. Buttonwood
3. K. Hornbeam

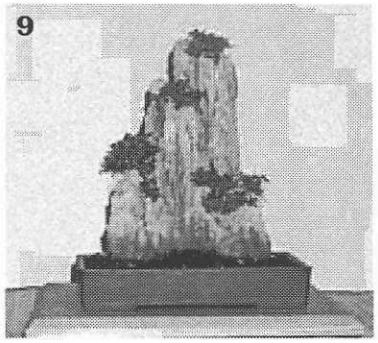




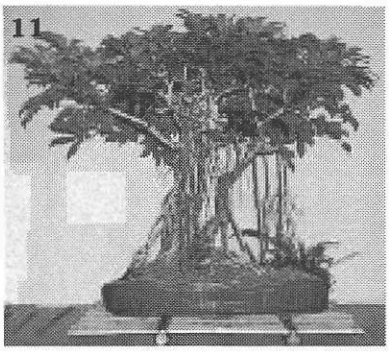


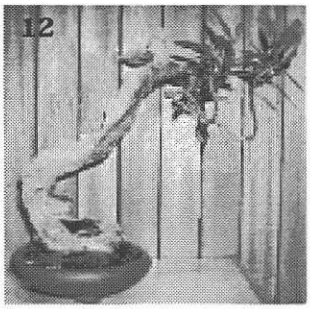
4. Chinese Elm
5. Scot's Pine
6. Jap. Quince



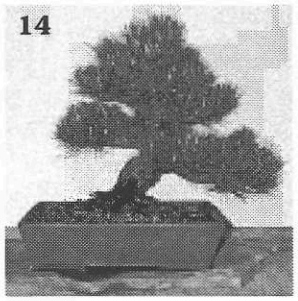


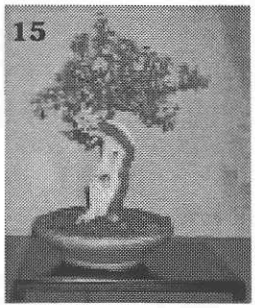
7. Am. Larch
8. Hinoki Cypress
9. Kingsvilles





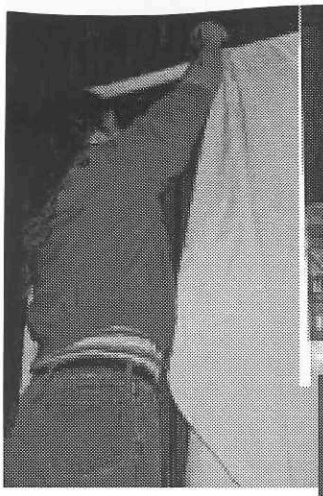
10. Shimpaku
11. Scheffalera
12. Buttonwood

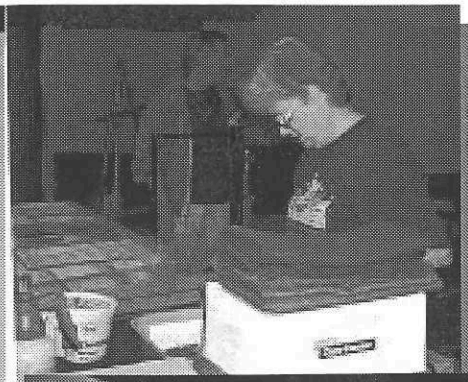


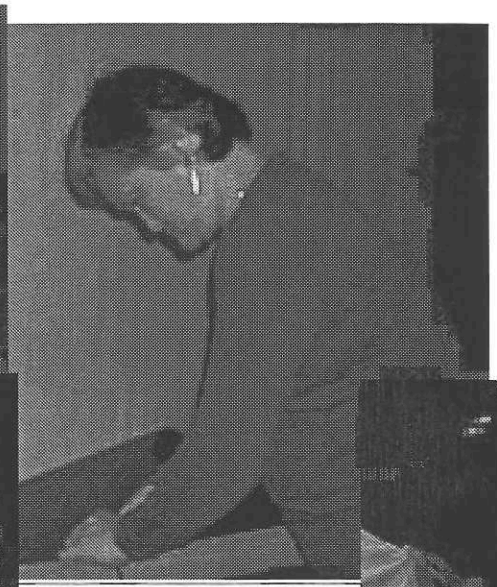


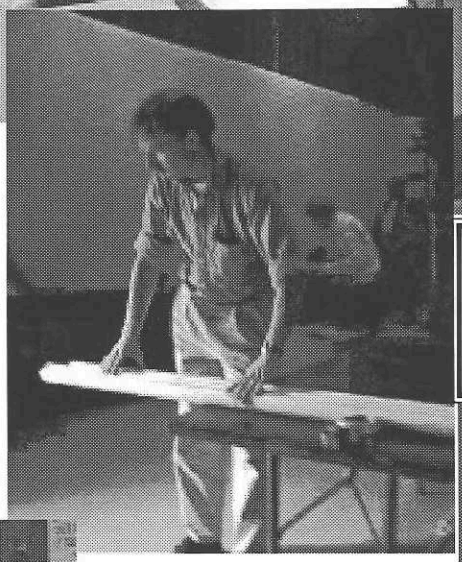
13. Corkbark Pine
14. Jap. Black Pine
15. Forsythia

More Next Month -
Watch This Space.







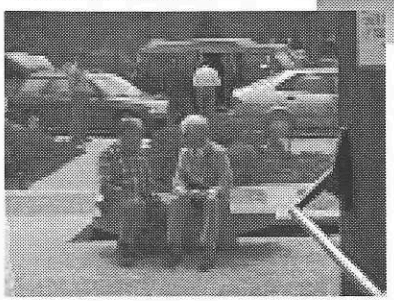


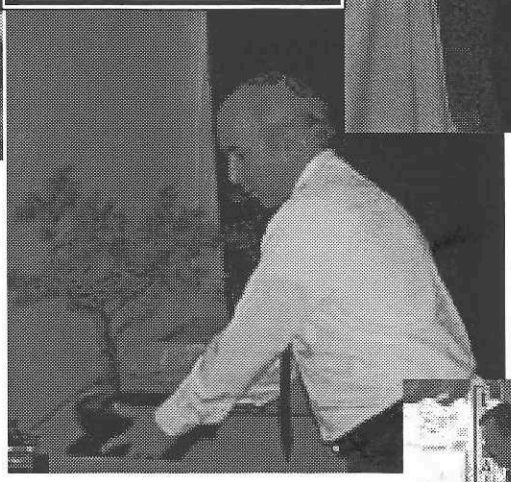
PBA VOLUNTEERS

Andy Cook, our new PBA President →

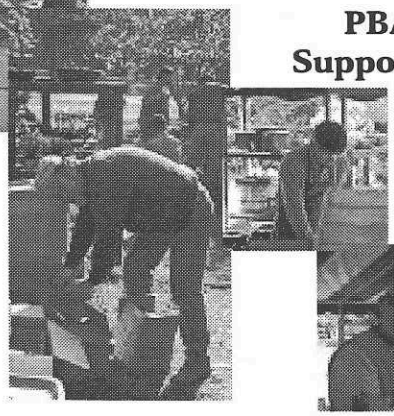
Your photo here

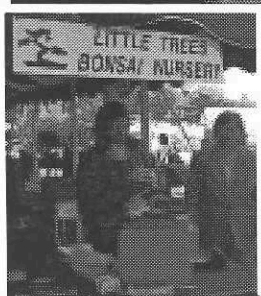
Some serve who only sit and wait. . .





PBA Supporters





. . .AND IF YOU'RE GETTING READY TO WHINE "I CAN'T TELL ANYTHING FROM THESE TINY PICTURES." YOU SHOULD HAVE GONE TO OUR GREAT SHOW AND SEEN ALL THIS FOR YOURSELF IN COLOR, 3-D, FULL SIZED.

Potomac Bonsai Association Membership Application

Welcome! We conduct a Spring Show and a Fall Symposium, as well as other events. PBA is composed of the clubs listed here. Join one and be eligible to attend any club's meeting, in addition to receiving *PBA Clippings* monthly. Residents of these communities are expected to join a club to receive all membership benefits, including *PBA Clippings*.

To become a member, call the contact person of the club convenient to your needs for current rates and where to send this application and dues. (Please make check payable to the club joined.)

Individuals residing beyond commuting distance of a club are invited to subscribe to *PBA Clippings*. For a subscription only (no entitlement to participation in club events), complete application and mail with a check payable to PBA for US $15.00 (US $35 for an international subscription) to: Judy Wise, 1259 4th St., Washington, DC, 20024. For more information, please call Judy at (202) 554-3045.

Meeting times and locations are subject to change. **Call first!**
Events are listed monthly in the Calendar section of *PBA Clippings*.

[ ] Individual Club membership (Includes *PBA Clippings*)

[ ] Family Club Membership (Includes one copy of *PBA Clippings*

[ ] *PBA Clippings* Subscription Only, US $15 (does not include club activities)

[ ] *PBA Clippings*, International Subscription, US $35 (Does not include club activities.)

[ ] Baltimore Bonsai Club [ ] Chesapeake Bonsai Society [ ] Northern Virginia Bonsai Society

[ ] Bowie Bonsai Club [ ] Kiyomizu Bonsai Society [ ] Rappahanock Bonsai Society

[ ] Brookside Bonsai Club [ ] Lancaster Bonsai Society [ ] Washington Bonsai Club

Name _____

Address _____

_____

City _____ State_____ Zip_____+4_____Nation_____

Telephone: Home: (___)_____ or Office: (___)_____

Meeting location and club contact number for additional information is as listed unless otherwise noted in calendar listing. A member of any one club is eligible to participate in any PBA (or PBA member club) event.

Baltimore Bonsai Club
Cylburn Arboretum, Baltimore, MD
3rd Sunday, I PM
Arschel Morell, (410) 744-6478

Bowie Bonsai Club
Bowie Community Center, Bowie, MD
Last Monday, 7 PM
Terry Adkins, (301) 350-3586
(202) 667-1016

Brookside Bonsai Society
North Chevy Chase Recreation Center, Chevy Chase, MD
3rd Thursday, 7:30 PM
Jim Hughes, (301)779-2891

Chesapeake Bonsai Society
Call for meeting time and location
(410) 263-2748
Tom Snow, (410) 923-2783

Kiyomizu Bonsai Club
Clearwater Nature Center, Clinton, MD
4th Sunday, 2 PM
Essie Wilson, (301) 839-2471

Lancaster Bonsai Society
Manheim Township Park, Stauffer Mansion
Lancaster, PA
2nd Thursday, 7 PM
(717) 872-5941
Cindy Kamide, (713) 738-3957

Northern Virginia Bonsai Society
Green Spring Horticultural Center, Annandale, VA
2nd Saturday, 10 AM
Chuck Croft, (703) 978-6841

Rappahanock Bonsai Society
Call for meeting time and location
Todd Stewart, (540) 775-4912

Washington Bonsai Club
U.S National Arboretum, Washington, D.C.
3rd Saturday, 2 PM
(301) 587-6898
Julie Walker, (202) 547-8497

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