Vol 14 No 4 April 1984

POTOMAC BONSAI ASSOCIATION

Newsletter

ISSN 0160-9521

PBA ANNUAL SHOW EXTRAVAGANZA AT THE NATIONAL ARBORETUM APRIL 27 - 29 1984

More Fun Than Ever!

The PBA Annual Show will be held at the U.S. National Arboretum on Friday, April 27, through Sunday, April 29. This year will be more fun than ever because, in addition to the ever popular display of our bonsai, we will have a bazaar, food and refreshments, demonstrations, and a raffle of a John Naka bonsai. The exhibit and the bazaar area will be open to the public each of the three days from 10:00 a.m. to 5:00 p.m. Non-PBA visitors to the exhibit will be asked to make a donation of $2. PBA members and children under 12 years old will be admitted free.

Volunteers Needed

Set-up for the exhibit will be on Thursday, April 26, beginning at around 9:00 a.m. in the Auditorium. The National Arboretum has kindly agreed to help us move the display booths and pedestals from the brick yard to the Auditorium that morning. However, substantial help will be needed from each of the PBA clubs to make signs, assemble the display booths, iron the burlap and otherwise get the Auditorium ready for the show. (As stated below, volunteers are needed for other aspects of the show as well.) Assembly should be completed by about 3:00 p.m. Exhibitors should bring their trees, stands and accent plants to the Auditorium between 3:00 p.m. and 5:00 p.m. on Thursday and between 8:00 a.m. and 10:00 a.m. on Friday.

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For **Corresponding** Membership: Make check payable to Potomac Bonsai Association and mail it to M. Hersh, 102 Devon Ct., Silver Springs, MD 20910.

Advertising rates: montly - $5.00 for 1/4 page, $10.00 for half a page, $15.00 for a full page with 20% reduction for ads that run 3 or more months.

Send advertisements and articles to J.F. Koetsch, 6709 Caneel Ct., Springfield, VA 22152, (703) 569-9378

President: Bill Merritt (703) 536-4052 Layout Editor: Bill Spencer (301) 593-4681
Editors: Jules F. Koetsch (703) 569-9378 Production Mgr: Harvey Everett (301) 933-0483
Mary Holmes (301) 721-1309
Snips and Slips Editor: Mary Holmes
Subscription and Circulation: Molly Hersh and Josephine Finneyfrock (301) 589-3725

POTOMAC BONSAI ASSOCIATION
c/o National Arboretum
24th & R Sts, NE
Washington, D.C. 20002

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Mr. Cy Mill
141 Wolftrappe Square
Viena, VA 22180

Bonsai Pest Dossier

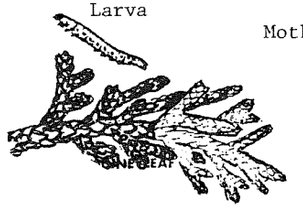
This is the second installment concerning bonsai pests. Comments are most welcome. Your warning sightings of pests could help others. Pass it along via the PBA Newsletter.

LEAF CUTTER BEES

Evidence: Large holes in the leaves where pieces have been cut away.
Size: 0.5 inches
Color: Like any bee - brown with red-brown rings on the abdomen
Pesticide: DO NOT USE ANY !
Manual: Cover plant with netting or cheesecloth.

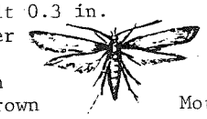
Leaf cutter bees roll the piece of leaf into a thimble shape to line the stem cavity in which the larva is feeding. Their importance as a pollinizing agent outweighs trying to exterminate them.

LEAF MINERS



Arborvitae Leaf Miner Larva

Moth



Moth

Larva

Azalea Leaf Miner

Evidence: Destruction of leaf or needle tissues.
Size: Azalea leaf miner
Adult and larva - 0.5 inch
Arborvitae leaf miner
Larva 0.2 in.
Adult 0.3 in.
Color: Azalea leaf miner
Larva - light tan
Adult - Yellow-brown wings with dark brown tips
Arborvitae leaf miner
Larva - light tan
Adult - light grey with black bands on the wings
Pesticide: Cygon, Derol, Diazinon, Orthene

Leaf miners, the larvae of certain moths, flies beetles or sawflies, feed between the epidermal layers of a leaf, causing blisters, blotches, or tunnels. In time the leaves turn brown and drop off.

Azalea Leaf Miners, the caterpillars of a small moth, feed in the leaf tissues until about half grown, then emerge and feed at the tip or margin. The caterpillar rolls or folds the leaf over itself and feeds inside this cover, in which it pupates. Leaf rolls can be pulled off and destroyed.

Arborvitae Leaf Miners eat out the inside of needles at the branch tips. The caterpillars overwinter in the branches and emerge in late Spring or early Summer. Females lay eggs on the foliage. Cut and destroy infested tips.

LEAFHOPPERS

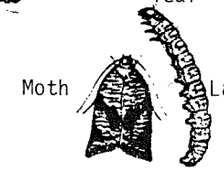
Evidence: Wilting/discoloration
Size: 1/2 inch
Color: Line-green
Pesticide: Cygon, Derol, Orthene Sevin, Malathion

Leafhoppers are small, active insects that damage plants by sucking sap from their leaves. The leaves curl either due to loss of sap or possibly to a toxin introduced by the leafhoppers as they feed. Some leafhoppers also spread virus diseases. When disturbed, adult leafhoppers hop into the air and fly away, their wings appearing white in flight. (They are very skitterish and since they take to the wing before you get a good look, their spread wings may be the only thing you will get a glimpse of.) The wingless nymphs run sideways to dodge out of sight on the opposite side of a leaf. Like aphids, leafhoppers excrete a sticky, sweet substance called honeydew. A population of several million leafhoppers may build up on plants on an acre of land in favorable conditions. Insecticides must reach insects feeding on the undersides of the leaves.

LEAF ROLLERS

Rolled spirea leaf

Moth



Moth Larva

Larva

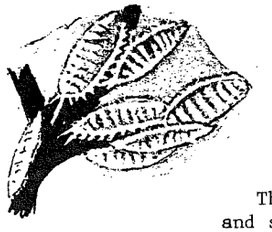
Oblique-Banded Leaf Roller

Red-Banded Leaf Roller

Evidence: Leaf rollers twist or roll a portion of a leaf over themselves and fasten it together with silk
Size: Larva 0.5 to 0.8 in.
Moth 0.8 in.
Color: Larva - green
Moth - brown and dark brown
Insecticide: Bonide, Cygon, Derol, Diazinon, Orthene

Leaf rollers feed on the surface or edge of the leaf, and when full grown, pupate inside the roll. The two most common species of leaf rollers, attacking a wide variety of flowers and shrubs, are the Oblique-banded and the Red-banded.

MEALYBUG

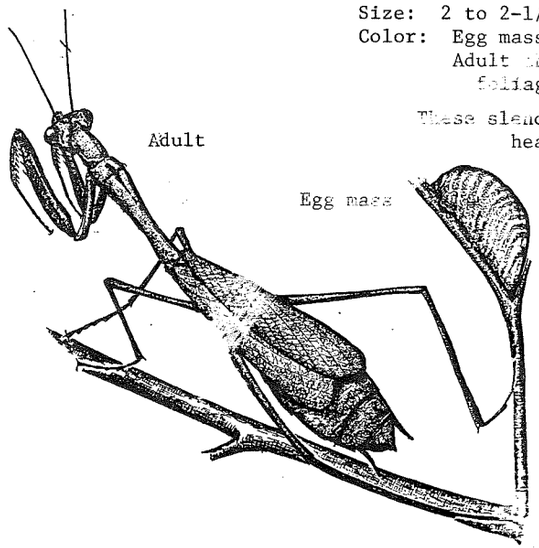


Evidence: Since mealy bugs are sof scales, they are visible in colonies on leaves and twigs and branches
Size: 0.2 to 0.3 inches
Color: Varied - some species are white while others may be light gray or light brown
Pesticide: Cygon, Dormant oil, Diazinon, Orthene, Sevin, Spectracide

These soft-bodied, oval insects have well-developed legs and segmented bodies that are covered with powdery or mealy white wax. Many have distinctive points that project from the sides, or tail-like filaments that trail from the rear, or both. Adults and nymphs feed in compact groups, sucking juices from, leaves, stems, and roots. Some species lay masses of eggs, which they surround with wax. Others give birth to living young and have no egg masses. Mealybugs are pests of citrus trees and greenhouses.

MANTID - EUROPEAN MANTID FRIENDLY ! !

Size: 2 to 2-1/2 inches
Color: Egg mass is light tan
Adult changes color to correspond with foliage.



These slender insects have a mobile, triangular head, prominent compound eyes, and threadlike antennae. The elongated fore legs are adapted for grasping and holding prey. Long, slender middle and hind legs are used for walking, standing, and leaping.

This mantid was accidentally introduced in 1899 on nursery stock from southern Europe. At a time when gypsy moth caterpillars were burgeoning in the eastern states, it was recognized almost immediately as a beneficial predator. However, mantids are so cannibalistic that they are rarely nemerous enough to have much effect in depleting caterpillar populations.

The ancients in some lands held that the mantis was created to show humans the proper attitude for prayer. Many Muslims still believed that a mantis faces Mecca as it assumes its reverential pose. Shepherds in Morocco, on the other hand, declare that if one of them is lost and comes upon a mantis, the insect will point with its foreleg to the north.

To peoples of the Orient the praying mantis has symbolized bravery and ferocity throughout its history. Its image appears on Chinese scrolls, lacquer ware, and woodcuts. Called in Japanese kamakiri (sickle cutter), the aggressive and combative mantis inspired designs on old-time Japanese sword guards. Then these images on the sword guards would face the samurais' opponents as

they drew their swords. In China a certain posture in the martial art of kung fu imitates the mantis.

Today the insects are cherished pets in many parts of the Far East, readily accepting human handling. But people there also have been known to bet on mantids pitted against each other in fights to the death within bamboo cages.

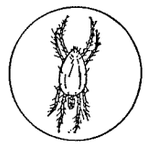
Attitudes of the Japanese are ambivalent. Some while admiring their form and color, associate them with the dark side of human affairs, in a class with deathwatch beetles, whose faint tickings as they bore into household timbers are thought to presage death.

The mantis is entwined in Chinese medicinal lore and practise. As long ago as the Confucian era in the fifth century B.C., the residue from mantis egg masses boiled in water was considered a specific for many ailments - even preventing infection in a warrior's knife or arrow wound. In old-time China, mantis egg masses were prescribed to cure cramps and remove warts, to alleviate gonorrhea, asthma, and bladder troubles, to remedy hip pains, bed-wetting, and impotence. To this day Chinese hervalists prescribe egg cases and the cast-off skins of molted mantids.

In some regions - particularly Southeast Asia - nutritional needs overcome the traditional awe of mantids. Along with grasshoppers and other insects, they add vital protein to many farmers' diets.

Over millions of years of evolutionary time, mantids have occupied all accessible regions that have a suitable climate.

MITES

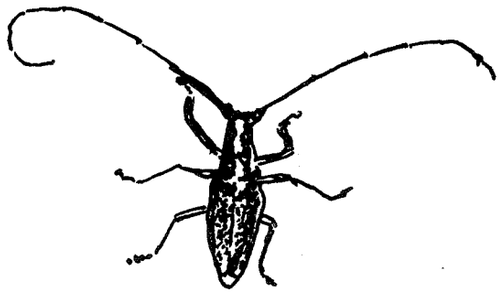


Evidence: Silk threads. Mites are very nearly invisible. Use a magnifying glass or shake the leaf or branch over a piece of white paper and the little varmints will fall onto the paper.
Size: 0.01 inch (microscopic)
Color: Some are grey-green
Red spider mite which seems to the most common is red (naturally).
Pesticide: Derol, Diazinon, Dormant Oil, Cygon, Isotox, Kelthane, Spectracide.

These are the peskiest critters in my bonsai community and it seems that you never can completely eradicate them. Mites, more closely related to spiders and ticks than to insects, are major pests of plants and also of man and his pets and domestic animals. Plant feeders suck the sap from leaves or tender parts of stems, causing them to be discolored. The injury weakens and may kill young plants. Many species spin, on the undersurface of leaves, a fine web containing their eggs and shed skins. Mites are most damaging in hot, dry weather, when a life cycle may be completed in as short a time as one week. Mites can be reduced in numbers by getting rid of weeds or other debris in which they pass the Winter as adults in the egg stage.

Eggs laid on twigs and buds may overwinter. In Spring hatchlings disperse into opening foliage and flower buds, where they penetrate tissues using sharp mouthparts. Rapid growth may lead to several generations before Fall. The male protects the unmated female from another male by shooting silk to ward off competitors. Although they are motionless while feeding, these mites are easily disturbed, and they run quickly among the loose webbing they spin as a shelter.

NEMATODES



Black Pine Sawyer Beetle

Plant nematodes, the only known animals which cause plant diseases are so small that most cannot be seen by the naked eye. That's why they are not illustrated, since the only way one can detect their presence is by the damage they have done. These organisms, termed nematodes or eelworms, result in plant infections world-wide. There may be as many as a half-million different kinds, yet only about four dozen genera are important plant parasites. However the pine wood nematode described below does not act like other nematodes which usually are found in bad soil and eat away a plant's root system. The symptom of their presence is a dying tree which should be removed from the container and the root system checked. All knotty segments should be removed and the roots thoroughly washed with a heavy spray of water before repotting in sterilized soil. Soil can be sterilized by placing it in an oven at about 180°F for a few hours. This may save the plant.

In the pine wilt disease of japan, nematologists and entomologists face a dramatic challenge. Black pine is regarded with reverence by the Japanese - it forms a central part of their highly developed landscaping art. But now the forest plantings of this species and of red pine appear to be threatened by a destructive disease involving a nematode, and a wood boring beetle,- the black pine sawyer beetle.

Pine wilt has been known in southern Japan for many years, but it is much more serious now. This may be related to the increased use of petroleum for heating. In previous times, dead or diseased trees were culled from the forests for firewood. But now these trees remain standing, pine sawyer beetle populations have increased, and the nematode-beetle combination has become more prevalent, since insecticide treatment of whole forests is not feasible. Recently this disease has also been found in the U.S. and in France.

All species of pine are potential habitat species of the pine wood nematode. However, it appears that the introduced pine species are highly susceptible to the pine wood nematode. In Maryland,the pine wood nematode has been collected most consistently from Austrian, Japanese black and Scotch pines. Although the pine wood nematode has been collected on our native pines, it appears that they have a much higher resistance to the pine wood nematode. It appears that our native pines become increasingly susceptible when under stress, e.g. overstocked stands, thin soils and drought. In Maryland, the pine wood nematode from the following native species: Virginia, loblolly, white and red pine. Out of state collections of pine wood nematode have also been reported on spruce and larch.

Life Cycle and Symptoms The life cycles of these nematodes and beetles are closely coordinated. Adult beetles emerge from dead trees carrying the nematodes with them in their tracheae. The nematodes survive environmental stress and have extensive food reserves. A newly emerged adult black pine sawyer beetle seeks the tender tissues of a healthy pine where

it feeds for several weeks until it can produ-e eggs. Meantime the nematodes leave the insect and enter the plant through injuries. Huge populations of nematodes build throughout the tree, and the symptoms of the disease appear. These result from the failure of water transport. The enclosed Table 1 summarizes the seasonal change in trees, insects and nematodes which combine in the transmission and development of pine wilt. (The above and the table are from INTRODUCTION TO PLANT NEMATOLOGY by V. H. Dropkin, Wiley (in press))

A deep vote of thanks goes to Dennis R. Hamel for providing the above information. At this writing, one of my Virginia pines has the symptoms and I fear it is doomed. I will know by next Spring.

Table 1 Coordinated life cycles of pinewood nematode, Bursaphelenchus lignicolus and of the pine sawyer, Monochamus alternatus in Japan. (From Mamiya, Y., 1976.)

Season	Pine Tree	Insect	Nematode
June/July	Healthy. Oleoresin flows freely from wounds.	Infected adult feeds on soft tissues for 30 days and nematodes contaminate tree	Dauerlarvae find resin canals of tree
July/Aug	Cleoresin does not flow from wounds and transpiration is reduced	Beetles oviposit on trees which do not yet show external signs of wilting	Nematodes become adult and population increases to high levels throughout resin canals of wood and in roots
Sept/Mar	Wilts rapidly, retaining needles that become reddish brown	Beetle larvae develop and tunnel through wood under bark	Population survives throughout tree
April/May	Dead	Beetle larvae pupate in tunnels in spring	J_3 nematodes aggregate around pupal chambers. When beetle molts to adult, J_3's molt to J_4 (Dauerlarvae) and enter spiracles of beetle
May/June	Dead	Beetle emerges as adult carrying nematodes; flies to healthy trees	Dauerlarvae are in tracheae of adult beetles

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P.O. BOX 81084

PARKHURST

2120 SOUTH AFRICA

12th November 1983

P O Box 81084
Parkhurst
2120 South Africa

Dear Bonsai Friends – All Clubs of P.B.A.

The Shibui Bonsai Kai in Johannesburg will be hosting the 1984 South African Bonsai Convention from 10th - 14th October. It is our intention to make it South Africa's first International Bonsai Convention. Our programme will feature the one and only, John Naka - from the U.S.A., Shigeo Kato - from Japan, together with local instructors and lecturers. Our main aim will be the bringing together of a group of Bonsai enthusiasts from around the world to share in the advancement and fellowship of the art form and extend the bridge of international friendship.

In order to enhance our living Bonsai and Suiseki Exhibition, we would like to have on display, photographs of Bonsai from around the world. We do hope you or your club will assist us and participate in our convention by supplying the necessary photographs. Colour prints, approximately 5inches by 7inches, with a maximum of 6, would be the ideal. These should be accompanied by the identifying information such as Botanical and common names of the Bonsai, size, name of owner, as well as any other relevant details. All photographs submitted by you will be retained by us and used for future exhibitions. We do hope you will help us to improve our exhibition. Please mail your photographs to the above address to reach us before 30th June, 1984.

We are also organising a post-convention tour of Southern Africa which will include visits to world famous attractions such as a gold mine, the Kruger National Park, Table Mountain, the Garden Route as well as a journey from Johannesburg to Cape Town on the world renown 'Blue Train'. Further details will be mailed to you soon.

How about coming to join us? We would love to have you.

Our initial advertising brochure is enclosed for your attention.

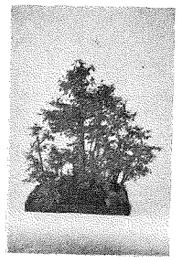
Sincerely

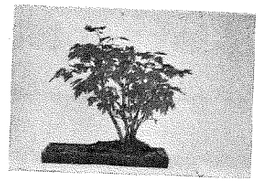
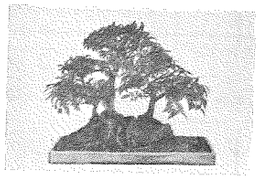
Derry

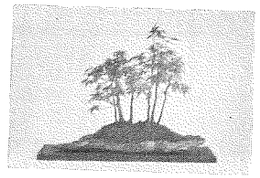
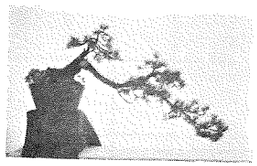
Derry Ralph
President
SHIBUI BONSAI KAI

Bonsai Pest Schedule (When to expect the critters)

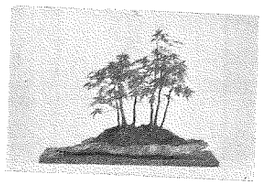
PLANT	MONTH											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Apple, crab					1 - 10 Tent Caterpillars Gypsy moths				10 - 20 Aphids			10 -20 Spider mites
Apricot, Japanese				Borers	1 - 10 Tent caterpillars Gypsy moths				20 - 30 Aphids			1 - 10 Spider mites
Azalea				1 - 10 ← Bark scale	20 - 31	20 - 31 →				1 - 10 Spider mites		10 - 20 Spider mites
						10 - 20 20 - 30 Lacebug	20 - 31 Black vine weevil	20 - 31 ------				
Cherry					20 - 31 Tent caterpillar		1 - 10 Scale		1 - 10 Fall cankerworm			1 - 10 Scale
Forsythia			1 - 10 ← Plant or leaf bugs	1 - 10	1 - 10	1 - 10 →	10 - 20 →	10 - 20 →	20 - 30 →			10 - 20 Scale
Quince			1 - 10 Aphids	20 - 30 Scale	1 - 31 Scale		1 - 10 Lacebugs		1 - 10 Aphids			1 - 10 Scale
Tea			20 - 31 Scale Mealy bugs								20 - 31 Scale	
Winter jasmine			1 - 10 Aphids	20 - 31 Scale		10 - 20 Black vine weevil →	1 - 10	20 - 31				1 - 10 Scale
Wisteria					10 - 20 Scale		20 - 31 Black vine weevil	20 - 31			20 - 30 Scale	
Beech	10 - 20 Woolly aphid Beech scale											1 - 10 Woolly aphid Beech scale
Elm	10 - 20 Elm scale		Woolly apple aphid	1 - 10 Gypsy moths								1 - 10 Elm scale
Ginkgo		10 - 20 Scale										1 - 10 Scale








SAWFLIES

Elm Sawfly

Evidence: Holes in leaves
Size: Larva 1.5 to 1.8 inches
Sawfly 0.1 inches
Color: Dark brown
Pesticide: Orthene

Rose Slug

Sawflies belong to the same order of insects as bees and wasps. Instead of stingers, the females have a saw-toothed ovipositor with which they cut cut slits in leaves or bore holes into the stems to lay eggs.

SCALE INSECTS

Evidence: Visible on branches or trunks
Size: 0.1 to 0.2 inches
Color: White or brown
Pesticide: Cygon, Dormant Oil, Malathion, Orthene, Sevin, Spectracide.

In heavy infestations the foliage turns brown and drops. Young plants may be killed. Oystershell, Pine Needle, Cottony Maple, and European Elm scales are common, widespread species.

PILLBUGS AND SOWBUGS

Sowbug

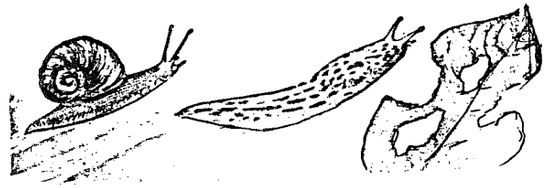
Pillbug

Evidence: Visible under pots
Size: 0.6 inches
Color: Dark brown
Pesticide: None noted
Screens over the drainage holes in a pot keep them from getting into the pot.

Coiled

Pillbugs and sowbugs are land dwelling crustaceans. They can survive only in damp places, as in leaf mold or in basements. They feed mainly on decaying vegetaion but also eat tender roots of plants.

SLUGS AND SNAILS



Evidence: Visible at night or roosting in a shady spot in the day. Holes in leaves.
Size: Snail 1/2 to 1 inch shell
Slug 1 to 3 or more inches
Color: Snail grey-brown
Slug has white underside and dark brown upper surface.
Pesticide: Bug-Geta pellets
Beer on aluminum plates

Slugs and snails are mollusks that feed on foliage. The damage may be mistaken for the feeding of insects pests. Slugs lack shells. Both slugs and snails leave a slimy trail. They usually feed at night and hide under debris during the day.

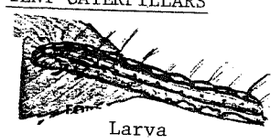
TACHINA FLY

FRIENDLY ! ! !

Size: 1/2 inch
Color: Black with red eyes

This large family , which includes many useful insect parasites, has long gone by the name of Tachinidae, and even though we must now use another family designation, it is likely that the insects will be called tachina flies for some time to come. The eggs or larvae are placed upon or within the host insect or upon vegetation which will be consumed by the host. Frequently visitors at flowers. The eggs or larvae penetrate the host insect and breathe through an integument of the host or through a connection with one of the air tubes (trachae) indside its body. The larval and pupal stages of the moths and butterflies are the preferred hosts. Usually only a single trachina fly develops in one host insect. Some are restricted to a single or a few host species; others have a wide range. The parzsite of a moth larva frequently devours its host completely, save for the head capsule and perhaps a fragment of the skin, before forming a brown puparium inside the cocoon or pupal cell. It has been imported to become a natural enemy of the Japanese beetle.

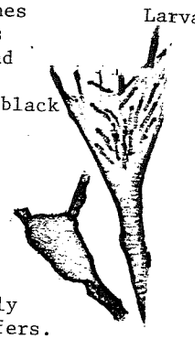
TENT CATERPILLARS



Larva

Adult

Evidence: Defoliate plant
Tent on plant
Size: Larva 1.5 inches
Moth 1.5 inches wingspread
Color: Larva resembles gypsy moth, - black and gray
Moth - tan
Pesticide: Bonide, Orthene, Sevin, Spectracide

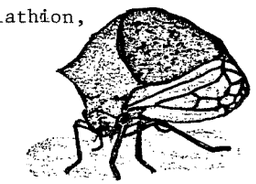


Larvae in tent

Tent caterpillars at times migrate in armies of millions, defoliating trees and shrubs in their path. They usually feed on the leaves of oaks, maples, elms, ash, and conifers. Winter is passed in the egg stage, and the larvae hatch in the early Spring. Adult moths appear in midsummer. Forest Tent Caterpillars , despite their name, do not make tents, as do the closely related Eastern Tent Caterpillars.

TREEHOPPER, BUFFALO

Evidence: Twigs and small branches become stunted
Size: 3/8 inch
Color: Green
Pesticide: Diazinon, Malathion, Sevin

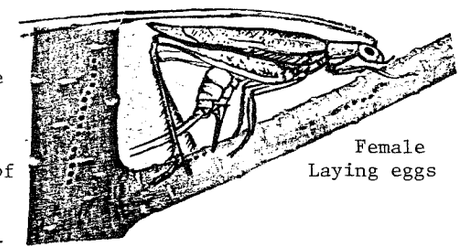


Treehoppers take sap from vegetation, particularly trees and shrubs. They press their eggs into slits in twigs, often killing the tip of the twig. The Buffalo Treehopper is the most widely distributed treehopper.

TREE CRICKETS

Evidence: Holes in branches
Size: 0.6 inch
Color: Green
Pesticide: Spray with lead arsenate in the Summer

Egg in twig

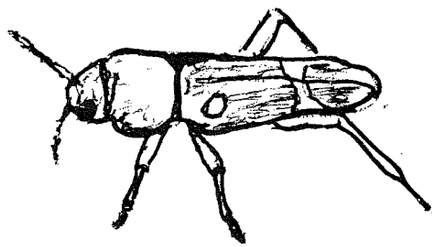


Female Laying eggs

Nymph

Tree crickets lay eggs in the branches of trees and shrubs. The female drills a hole, lays an egg, then moves forward and repeats the process, sometimes laying several dozen eggs in a row. The stem beyond the punctures usually dies. Remove and burn the punctured stems in the Fall.

WILLOW BORER



Evidence: Tunnels into bark
Size: 1/2 to 5/8 inches
Color: Brown with yellow markings
Pesticide: Lindane

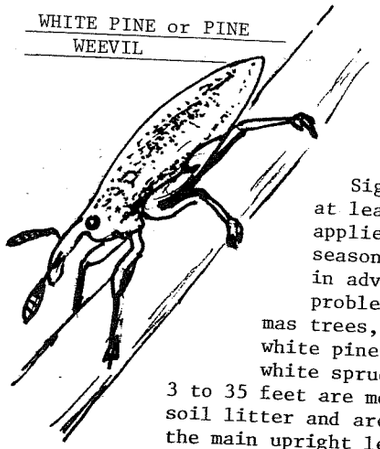
The adult nibbles pollen, the larva bores into the willow. Eggs are laid on bark of living or dead trees. Larvae tunnel inward, later pupate close to bark surface. One generation per year.

WILLOW LEAF BEETLE

Evidence: Skeletonize leaves
Size: Larva - 3/8 inc
Adult - 1/4 to 3/8 inches
Color: Larva - black
Adult - red with black, irregular spots and resembles a lady bug except for the number and arrangemnt of the spots.
Pesticide: Orthene, Sevin.

Eggs are laid in the Spring on willow leaves, where lsrvae feed. Full-grown larvae pupate while hanging head downward from a leaf or twig.

WHITE PINE or PINE WEEVIL



Evidence: Glistening drops of resin on tree bark
Size: 1/8 to 1/4 inch
Color: Light to dark brown or black with pale spots of sparse hair.
Pesticide: Lindane

Signs of white pine weevil damage do not appear for at least two months after control measures have been applied! Therefore, the host plants, habits, and seasonal development of this pest need to be considered in advance to protect trees. White pine weevil is a problem in home landscapes, forest plantations, Christmas trees, and nurseries. Most often it attacks eastern white pine and Norway spruce, but may damage Scots pine, white spruce, and a few other similar species. Trees 3 to 35 feet are most susceptible. Adult weevils hibernate in soil litter and are active during March and April. They fly to the main upright leader, never a lateral branch, where they feed on the bark for about a week. Eggs are then laid in some of the feeding holes. When the eggs hatch in a week or two, grubs tunnel downward in the stem. By the end of May or early June, the current year's shoot and needle growth wilts, droops, and gradually turns brown. Occasionally two whorls of growth are killed. After pupating in the stem in June and early July, adults emerge and move to prottected places where they hibernate for the Winter.

During June when wilting occurs, infested leaders can be destroyed to reduce numbers of weevils that will emerge. To prevent damage, the upright leader or terminal shoot (15 to 20 inches) should be sprayed with lindane before April 1st. It is not necessary to spray the entire tree , only the bark of the terminal. It is not possible to predict which individual trees may be attacked, but in areas where there are numerous conifers and evidence of weeviling, protective sprays should be applied to valuable trees.

The above writeup was found under the title"Timeliness Critical for White Pine Weevil" by John Weidhass, Extension Extomologist; The Virginia Gardener, Dept. of Horticulture, Extension Division, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, Volume 1 No. 3, March 1982.
The article was submitted by Bill Daly , Northern Virginia.

WOOLLY APPLE APHID

Winged adult

Root galls

Evidence: Holes in leaves and buds eaten on apple,elm, hawthorn, mountain ash, pear, and quince. Elm leaves curl in groups where the insects are clustered.

Wax on apple twig

Size: 0.05 inch
Color: Brown with woolly white covering on adults
White wax on twigs
Pesticide: Cygon, Derol, Diazinon, Malathion, Orthene, Spectracide

Wingless adult

Woolly apple aphids secrete a white, woolly wax over their bodies as they feed. They overwinter either in the egg stage in crevices on the bark of elms or as nymphs

hibernating on roots of apple trees. Nymphs that hatch from the eggs on elms feed on the leaves and buds. In the third generation winged forms appear and migrate to apple trees, where they feed on roots, causing galls to form. Sometimes they stay on the roots for two seasons, through several generations. They stunt the tree's growth and may kill it. These pests are difficult to control.

FREE. . . FREE. . . FREE. . . FREE. . . FREE. . . FREE. . . FREE. . . FREE. . .

INTRODUCTORY WORKSHOP FOR NEW***PBA MEMBERS: Saturday, 9 June 1984
Auditorium, Administration Building
National Arboretum,26th & R Sts. NE

Teacher: Bill Merritt, PBA President

We are continuing our program for new PBA members. A free one day workshop will be offered each Spring to welcome members who have joined our association for the first time.***A modest tree and pot will be provided to initiate beginners to the 'mysteries' of creating their own bonsai.

The philosophy of the program is that a senior teacher, again this year it will be Bill Merritt, will present the artistic background and advise the participants on the styling of their trees. It is expected that a representative from each local club, such as the educational vice president, will be present to assist the lecturer. Students will not complete their creations at this session. Certainly there will not be any potting at this session. Rather, each club is expected to schedule their own follow-up workshop, which should assist new members in the final styling of the tree and introduce the participants to the skills of wiring and potting.

***This workshop will only be offered on a one time basis to new members The program is specifically designed as an introduction to bonsai and is not meant to substitute for a full fledged beginners course. Each club treasurer will be asked to verify that participants are eligible. This information should be transmitted to the club representative who will be present at the workshop. Early estimates of the number of students would be appreciated. Call F. Mies (301-299-6194) by 1 June if possible.

Seattle Bound?

SECRET CODE: The February 1984 PBA Newsletter mentioned a special fare on Eastern Airlines for those going to the International Bonsai Congress of 1984. This will be hosted by the Puget Sound Bonsai Association.

When applying for your airfare, identify yourself to Eastern Airlines by giving them the SECRET CODE EZ7P24 to obtain the special fare.

Mary Holmes

PBA ANNUAL MEETING

The PBA Annual Meeting is scheduled for the evening of 28 April, a Saturday, beginning at 5:00 p.m. PLAN TO BE THERE ! ! !

Vote on the temporary suspension of Article 5c of the PBA Constitution so that the following slate of officers can be elected or propose your own nominations:

President:	H. William Merritt
First Vice President:	Felix Laughlin
Educational Vice President:	Fred Mies
Secretary:	Julie Walker
Treasurer:	Jack Wells

The above slate of nominees includes only one new name, that beside the office of Treasurer. The other nominees are the incumbents.

In the event that the above slate is not approved, the following will comprise the alternate slate.

ALTERNATE SLATE OF OFFICERS

President:	Felix Laughlin
First Vice President:	Jim Daly
Educational V.P.:	Fred Mies
Secretary:	Julie Walker
Treasurer:	Jack Wells

In addition bring your ideas on what to do to improve PBA.

This is an opportunity to air your thoughts on - any and all related PBA related matters.

There will be a buffet after the meeting is adjoined.

Come early and see the display.

SORRY WE GOOFED ! !

Last month's issue of the PBA Newsletter was captioned Vol 14 No 3 April 1984 instead of March 1984. You can pen-in the correction or remember that besides being Leap Year there were two months of "April".

DUES ARE DUE pay your local club treasurer

April and May Schedule

Key:

B - Buy tree
Bl - Flowers bloom
F* - Small amount of fertilizer
G - Put in under shelter or in greenhouse
Gr - Do grafting
I - Use insecticide
HS - Half-a-day shade

OB - Open branches
ON - Remove old needles
P - Prune
PB - Prune branches
PS - Prune sprouts
R - Repot
RB - Remove dead blossoms
RG - Remove from greenhouse

RL - Remove leaves
RN - Remove new needles
RW - Remove wire
Sp - Spray foliage
V - Best viewing time
Wl - Water once per day
W2 - Water 2 times per day
W3 - Water 3 times per day
2W - Water every other day
Wi - Wire

PC - Prune candles

FP - Protect from frost

CONIFERS	APRIL	MAY
Cypress		
Hinoki	F,R,Wi	F,PS,R,Wi
Sawara	R,Wi	F,PS
Hemlock	B,F,R	B,F,PS,R
Juniper		
Needle	F,R,Wi	PS,R,Wi,W2 (1)
Shimpaku	F,R,Wi	Wi,W2,(2)
Larch	B,R,Wi	F
Pine: Black	R,Wi	F,R,Wi,W3
Corkbark	Gr,R,RC,Wi	F,RC,R,W3
Red	PC,R,Wi	PC,R,Wi,W3
White	PB,PC,Wi	F
Spruce	F,R,Wi	F,PS
Yew	B,R,Wi	F,PS
FLOWERING		
Andromeda	F,R,RG	Bl,I,PB
Apple,crab	F,PB,R	F,Wi
Apricot - Japanese	F,R	F,I,PS,Wi, W3
Azalea	B,F	Bl,PB,PS,R
Cherry	B,F	F,I,PB,PS, Wi,W2 or W3
Forsythia	Bl,I,RB	F,I
Quince	F,I,R	F,PS,Wi, Wl to W2
Tea, bohea	P,R	F
Winter jasmine	F,I,R	F,PS,Wi,W2
Wisteria	Bl,I,PB,RG	F,I,Wi

DECIDUOUS	APRIL	MAY
Beech, white	PS,R,RW	F,PS
Elm, Chinese	F,PS,Wi	F,PS,PB
Ginkgo	F	F,PB
Hackberry	F,I,PS,Wi	F,I,PB
Ivy, Boston	F,I,R	F,I
Maple		
Japanese	F,I,RW	PB
Trident	PB,PS,Wi, W2	F,PB,PS
Weeping willow	F,I	F,I,P
FRUIT BEARING		
Cotoneaster	B,F,I	F,I
Gardenia	F,P,R	F,I,Wi
Holly	B,FP,R	F,I,PB,PS Wi
Ilex,dwarf	F,I,R	F,I,PB,Wi
Pomegranite	B,I,R	F,I
Pyracantha	I,R,Wi	F,I,PB,Wi

(1) Possibility, wash roots in repotting.

(2) Spray needles for 9 days.

CALENDAR OF EVENTS

DUES ARE DUE

Pay the annual dues to your local club treasurer.

31 March Saturday — PBA Collecting weekend on the Eastern Shore. See the last month's issue of the PBA Newsletter or telephone Fred Mies at (301)299-6194 evenings and weekends.

12 April Thursday — ANNAPOLIS(301)263-3995. Annapolis West St. Library. Experienced members please bring trees for demonstrations and discussions on styling.

14 April Saturday — NORTHERN VIRGINIA (703) 920-8361:Green Spring Park Horticultural Center at 10;00 a.m. WORKSHOPS Bring trees to work on, - see the April Schedule in this issue for suitable tasks. Bring trees that you intend to enter in the PBA Annual Spring Show at the National Arboretum. See the listings below for the dates. There will be a WIRING DEMONSTRATION along with help on repotting.

14 April Saturday — BROOKSIDE (301)593-4681: NOTE CHANGE!!!! Well, the circus has finally arrived. Unavoidable delay was due to inclement weather in South Georgia. Foemina juniper in 35 gallon cans will be the material to be worked on and RAFFLED!! Come one come all. We will also devote some time to the further refinement of trees for the Spring Show.

15 April Sunday — BALTIMORE (301)669-1847: Cylburn Nature Center. COLLECTING TRIP. Time and place to be announced.

15 April Sunday — KIYOMIZU (301)423-8230:Clearwater Nature Center, Clinton, MD, at 2:00 p.m. Planning for the PBA Annual Spring Show, see the listing below. REPOTTING - the order for soil should be in.

21 April Saturday — WASHINGTON (202)583-2676: National Arboretum at 2:00 p.m. Preparation of trees for the PBA Annual Spring Show, - see the listing below.

P B A Annual Spring Show - National Arboretum

26 April Thursday — All day up to 9:00 p.m. SET-UP

27 April through 29 April — The trees will be on display

28 April, Saturday — PBA Annual Meeting beginning at 5:00 p.m.

29 April, Sunday — Take-down of displays.

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19 May Saturday — WASHINGTON (202)583-2676: SAIKEI. Speaker to be announced. National Arboretum at 2:00 p.m.

19 May Saturday — BROOKSIDE(301)871-5768.Argyle Community Center. 1:00 PM.Workshop.This will be the perfect opportunity to work on trees bought at the auction or at the nursery.Arrangements will be made for the newer members to be assisted in the purchase of a tree.More details in the next newsletter.

20 May Sunday — BALTIMORE (301)669-1847: Cylburn Nature Center 2:00 p.m. MAPLE FOREST PLANTING WORKSHOP. Fee $10.00. Richard Meszler, will be the leader. Fee includes maple seedlings, pot and soil.

19 May Saturday — PBA AUCTION AT BEHNKE'S NURSERY.

27 May Sunday — KIYOMIZU (301)423-8230: Clearwater Nature Center, Clinton, MD at 2:00 p.m. Bill Merritt will discuss tools.