# Branching Out

An Integrated Pest Management Newsletter for Trees and Shrubs

Volume 32 No. 2 April 25, 2025


## Contents...



**Thank You to Our Scouts and Diagnosticians**

Amy Albam, Carol Bradford, Dawn Dailey O'Brien, Don Gabel, Sandra Jensen, Hillary Jufer, Karen Klingenberger, Elizabeth Lamb, Jen Lerner, Jessica O'Callahan, Zaidee Powers, Alice Raimondo, Mina Vescera, Michael Voss, Sandra Vultaggio

**Scouting Report Notations:**

(#) Numbers in regular type note plate(s) in *Insects that Feed on Trees and Shrubs* (2nd edition) by W.T. Johnson and H.H. Lyon.

(#) Numbers in italics note plate(s) in *Diseases of Trees and Shrubs* (2nd edition) by W.A. Sinclair, H.H. Lyon, and W.T. Johnson.

## Scouting Report

### Conifers

**Cedar-Apple Rust (*129-133*)**—fully expanded telial horns in Suffolk Co. following wet weather. Horns starting to emerge in central NY.

*Cedar-apple rust horns on the verge of their full display (Michael Voss)*

**Cypress Canker on Leyland Cypress (*95*)**—in Suffolk Co. This disease, due to any of several Seiridium species, is becoming more common, but the pathogen is not listed on fungicide labels. Compare to symptoms of Phyllosticta needle blight and you'll see the similarity. The same basics apply: give trees full sun sites, protect against drought, and don't let irrigation hit lower foliage.

*Cypress canker symptoms (Margery Daughtrey)*

**Desiccation Damage (*245*)**—sightings and reports streaming in of conifers and broadleaved evergreens in landscapes around the region with browning foliage which appears due to desiccation. Often symptoms are concentrated on north/ northwest sides, but many cases have entire plants with dieback. Drought conditions late last summer and early fall likely a major factor.

*Arborvitae hedge with browning foliage, northwest exposure (Dan Gilrein)*

**Diplodia Tip Blight (*64*)**—on Austrian pine in Rockland Co.

**Eastern Spruce Gall Adelgid (50)**—producing cottony material in Rockland Co.

*Eastern spruce gall adelgid nymph at bud base of Norway spruce (Dan Gilrein)*

**Elongate Hemlock Scale (45)**—males in Monroe Co.

**Hemlock Woolly Adelgid (32)**—mostly eggs, some crawlers just starting to become active in Rockland Co. Once settled, appearance changes and they no longer move. Second-generation nymphs remain inactive through summer and resume development in fall.

*Hemlock woolly adelgid settled nymphs (Dan Gilrein)*


Cornell University Cooperative Extension

**Larch Casebearer (11)**—larvae active in Westchester Co.

**Phyllosticta Needle Blight on Leyland Cypress**—Dieback noted in Suffolk Co. associated with a *Phyllosticta*, probably *P. thujae* that also affects arborvitae, chamaecyparis and juniper. The fungus lives in the host as a compatible endophyte until a stress occurs (such as winter injury) that changes their relationship to that of host and pathogen. For cultural management, prune out injury and avoid hitting the foliage with lawn sprinklers. Particularly in shaded sites, fungicide treatments may be beneficial, especially in spring. See more in *Under the Scope*.

*Two examples of Phyllosticta needle blight on Leyland cypress (Margery Daughtrey)*

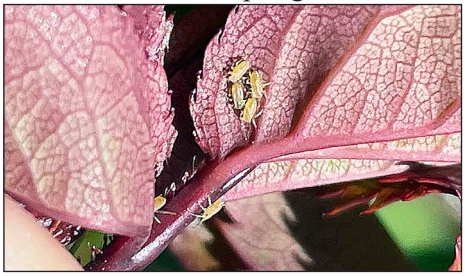
**Pine Bark Adelgid (31)**—on eastern white pine in Suffolk Co. Eggs and possibly crawlers should be present now.

**Spruce Spider Mite (52)**—eggs hatched in Rockland Co.

**Weir's Cushion Rust (*143*)**—pustules visible in Westchester Co.

## Broad-leaved Trees and Shrubs

**Aphids on Roses (146)**—first young nymphs on roses in Suffolk Co. These are likely rose or potato aphid, both observed on same shrubs last summer and fall. Numbers often build early but seem to have little impact on growth. Populations are usually much reduced by biocontrols later in spring and summer.



*First aphid nymphs on rose (Dan Gilrein)*

**Black Knot of Plum and Cherry (*75*)**—in Suffolk Co. Lumpy, bumpy black galls caused by the fungus *Apiosporina morbosa* should be pruned out before the growing season commences. Make cuts 4" below swollen areas in late winter to remove inoculum. Dispose of prunings as they can be a source of ascospores. Buds are most vulnerable to spring infection from white bud through shuck split stages of development. More: https://tinyurl.com/n7detb28

*Black knot gall on native black cherry,* Prunus serotina *(Barbara Ludlow)*

**Boxwood Leafminer (94)**—leaf undersides ripped open by birds feeding on leafminer larvae in Suffolk Co. Sandra Vultaggio notes "chickadees, warblers, nuthatches, and tufted titmice have all been said to do this."

*Leaves torn open by birds seeking boxwood leafminer larvae (Sandra Vultaggio)*

**Cottony Taxus (Camellia) Scale (164)**—on 'Nellie Stevens' holly in Passaic Co. (NJ).

*Cottony taxus (camellia) scale (Don Gabel)*

**Dogwood Leaf Emergence**—buds opening in Tompkins, Rockland and Suffolk Cos. but not yet in Westchester Co. Sprays for anthracnose begin as leaves start to expand.

**Late Frost Injury (*244-248*)**—unexpanded leaves showing small dead areas on roses in Suffolk Co. likely from 27°F low on April 10.

*Likely cold temperature damage to tender rose leaves (Dan Gilrein)*

**Putnam Scale on Rhododendron**—on leaf undersurface creating yellow spots and jagged lines on top in Suffolk Co. Some confusion surrounding *Diaspidiotus ancylus* with a history of many Latin names, variants on bark vs. leaves, and questions if actually multiple species. Reported from many evergreen and deciduous broadleaved hosts but I've only encountered it on rhododendrons with heavy indumentum (felt-like layer) under leaves. More: https://tinyurl.com/PutnamScaleTN

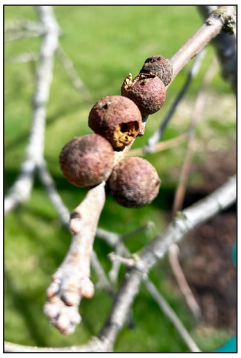
*Putnam scale damage (Dan Gilrein)*

**Roseroot Gall Wasp**—*Diplolepis radicum* gall wasps create sometimes large (1-4") galls around stem bases at or mostly below soil line, easily distinguished from crown gall when cut open. Some were found pupating in a *Rosa rugosa* sample from Suffolk Co., likely emerging in May. Also reported from *R. carolina* and many others. Prune out and destroy if objectionable. *R. rugosa* 'Thérèse Bugnet' noted as especially prone. Some parasitoid biocontrols are known. Plate 211 shows other *Diplolepis* galls on roses.

*Roseroot gall wasp gall cut open to show pupating wasps noted by arrows (Dan Gilrein)*

**Rough Bullet Galls on Swamp White Oak Twigs**—in Suffolk Co. *Dishocaspis quercusmamma* wasps

create these in fall. Overcup and bur oaks are other hosts. Though many Latin names have changed here's a very useful reference to wasp galls by plant and type: https://tinyurl.com/GallWaspsWeld



*Rough bullet galls*

**Soft Scale**—appears to be a *Pulvinaria* sp. similar to cottony maple leaf scale on *Euonymus alatus* in Suffolk Co. Overwintered older nymphs are usually susceptible to horticultural oil treatment.

*Soft scales (Michael Voss)*

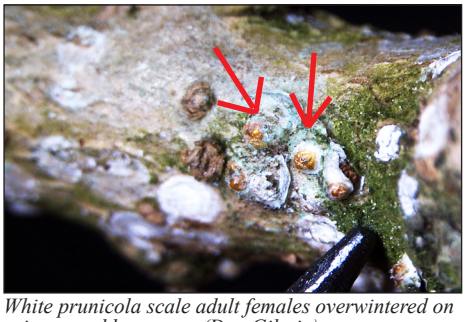
**Spongy Moth (61, 62)**—egg masses on American beech in Passaic Co. (NJ), appeared to be old (spent) masses judging from numerous holes and faded color; confirm by checking for hard eggs within. Survey egg masses in winter to early spring for potential infestations to inform management planning. Survey guidelines (https://tinyurl.com/gmprot2005) include info on distinguishing new (2024) from old (before 2024) egg masses. Egg masses also on *Tilia cordata* in Suffolk Co.

*Old spongy moth egg masses (Don Gabel)*

**Taxus Bud Mite (230)**—damage from 2024 on yew in Suffolk Co. Buds not killed develop with distorted new growth. Rarely noticed, it is often sheared away or masked by normal foliage. Damage is much less after cold winters.

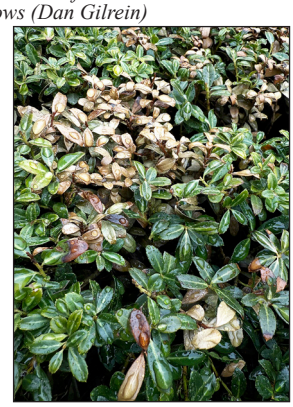
*Taxus bud mite damage (Dan Gilrein)*

**White Prunicola Scale (188)**—on privet in Suffolk Co. Adult females numerous, large proportion dead but many still alive. Lift scale covers to check: live insects beneath are apricot-orange. Some might be removed now before spring growth is underway using jet of water from hose or sprayer. Treatments well-timed right after most crawlers (bright yellow-orange) emerge in mid-June and late July have been effective. Many hosts, especially on lilac, cherries, holly. Occasionally on pachysandra and mountain laurel.



*White prunicola scale adult females overwintered on privet noted by arrows (Dan Gilrein)*

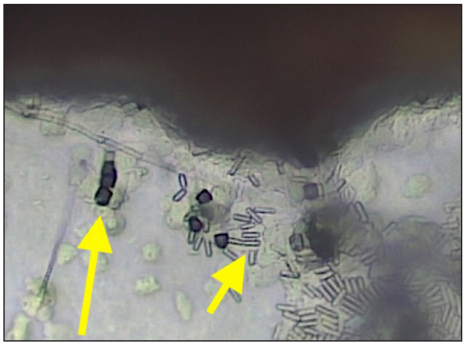
**Winter Scorch and Discoloration on Ilex (*244-248*)**—Numerous cases of winter-injured hollies reported in Nassau and Suffolk Cos. this year. Browned or blackened leaves on large upright hollies and low hedges. Injury is most likely when sharp temperature drops follow bright sunny days. Some *Ilex glabra* showed an overall dark discoloration in nurseries even with hoop-house protection from wind and sun, a characteristic of this species.



*Winter browning on* Ilex crenata *'Soft Touch' (Benjamin Carroll)*

## Under the Scope:
### Reports from Diagnostic Labs

**Black Root Rot on Lavender (*110*)**—Disease caused by *Berkeleyomyces basicola* was diagnosed from a nursery sample by finding characteristic sporulation on browned roots. Both dark brown chlamydospores (left arrow) and rectangular endospores (right arrow) are evident.

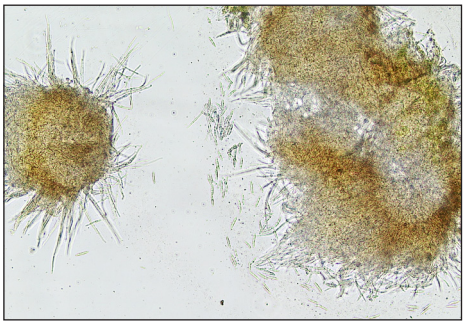


*Lavender root with black root rot (Paulina Rychlik)*

**Phyllosticta on Leyland Cypress**—The black pycnidia formed by the fungus are visible with a hand lens or a dissecting microscope on blighted foliage, but at this low magnification they may be hard to distinguish from the acervuli of *Seiridium* spp.

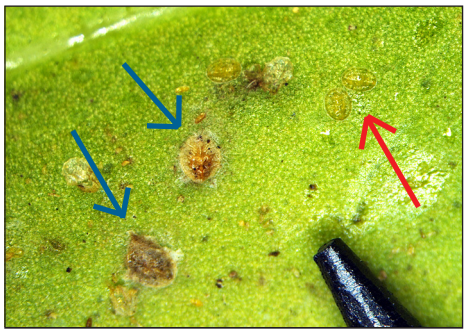
*Pycnidia of a* Phyllosticta *sp. (Margery Daughtrey)*

**Volutella Blight of Pachysandra**—Sporulation of *Coccinonectria pachysandricola* (the cause of Volutella blight on pachysandra) seen under high power is distinctly different from spores produced by *Calonectria pseudonaviculata*, the fungus that causes boxwood blight and also forms leaf spots on pachysandra.



Coccinonectria *from pachysandra (Paulina Rychlik)*

**Whiteflies on Holly**—This past week we received a sample of holly from Brooklyn with overwintered whitefly nymphs under leaves. There were some dead individuals, apparently killed by a fungus, and numerous empty pupal cases with light sooty mold present. We suspect this is something new to the region, possibly one seen in 2023. Nymphs are quite difficult to see without high magnification and blend in well with leaf surfaces.



*Whitefly nymphs - dead noted by blue arrows; live noted by red arrow (Dan Gilrein)*

## Miscellany

**Hudson Valley CleanSweep Event, May 13-16**—Get rid of old pesticides

Branching Out
Plant Pathology and Plant-Microbe Biology
Cornell University
334 Plant Science Building
Ithaca, NY 14853

& other chemicals. See first issue for details or https://tinyurl.com/mumaxuky

**Honey Bee Losses**—*Project Apis m.* release summarizes findings from the recent study concerning very high losses of colonies from June 2024-March 2025. No specific causes yet identified but multiple factors are being investigated. https://tinyurl.com/HBeeLosses6-24to3-25

**Spotted Lanternfly**—Wondering when they'll appear? Here's guidance:

- Penn State Extension: maps egg hatch over the US based upon work in PA and VA. https://tools.cei.psu.edu/slf/
- NEWA: similar information and tracks further development using your local weather data. Erica Smyers found 5% eggs hatched at 164 (PA) to 173 (VA) degree-days (base 50.7F) with calendar dates from May 1 to May 3 (2017 & 2019). More generally, some use 200 GDD as the approximate threshold for emergence. https://newa.cornell.edu/spotted-lanternfly

## Phenology by County

**Monroe:** magnolia, American hornbeam leaves opening

**Rockland:** black & river birch, Kwanzan & mazzard cherry, European hornbeam, Callery pear, flowering quince, peach, 'PJM' rhododendron, redbud

**Suffolk:** 'PJM' rhododendron, saucer magnolia, 'Yoshino' cherry, Callery pear, Norway maple, shadbush; early bloom: flowering quince

**Tompkins:** cherry, forsythia, Kwanzan cherry, star magnolia

**Westchester:** forsythia, andromeda, cherry, pear, magnolia (beginning to fade)

*Dan Gilrein, Karen Snover-Clift, Margery Daughtrey & Shari Romar, editors*

## Growing Degree Days

As of April 22, 2025

| Station | $GDD_{50}$ |
|---|---|
| Albany | 57 |
| Binghamton | 43 |
| Boston, MA | 66 |
| Bridgeport, CT | 56 |
| Buffalo | 67 |
| Central Park | 139 |
| Farmingdale | 72 |
| Hartford, CT | 57 |
| Ithaca | 42 |
| New Brunswick,NJ | 134 |
| Poughkeepsie. | 77 |
| Riverhead | 80 |
| Rochester | 62 |
| Syracuse | 54 |
| Watertown | 31 |
| Westchester | 80 |
| Worcester, MA | 35 |

## Our Financial Supporters

*We thank our supporters for their generous gifts:*

- New York State Turfgrass Association
- New York State Arborists-ISA Chapter
- The Orentreich Family Foundation
- William De Vos / Treeworks
- Almstead Tree & Shrub Care Co.
- Bartlett Tree Experts
- Evan Dackow / Jolly Green Tree and Shrub Care
- Long Island Arboricultural Association
- Perennial Charm Nursery
- Stephen Raimondo
- Frank Saladino / Plant Care Solutions, Inc.
- K. Biene Schaefer/Atlantic Nurseries
- Michael Sperber / Nature's Guardian, Inc.
- Edward Wade / Wade Tree Care, Inc.
- David Fernandez / Cayuga Landscape Co.
- Bayport Flower Houses, Inc.
- Mount Pleasant Cemetery
- Orchard Tree Specialists
- TB Tree Care & Associates
- And our other donors to be acknowledged in future issues

# Tree Risk Assessment

*A. Wayne Cahilly, Cahilly's Horticultural Services, LLC (all photos courtesy of the author)*

## Introduction

Tree Risk Assessment is often seen as the exclusive realm of the professional arborist, and one who holds the International Society of Arborist credential of Qualified Tree Risk Assessor. Although this is true to some extent, there are many opportunities that present themselves to other horticultural professionals allowing them to make preliminary judgments about risk. Arborists often are only brought in to evaluate trees after someone on staff determines that there is a need, but assessment might be justified before a threat is apparent.

First, let's look at the dichotomy that is the tree. As with all living organisms, there are the life processes that we see outwardly expressed in the growth of stems, branches twigs, leaves, flowers, and fruit. Every process within the tree, from moving a molecule of water across a root-cell boundary to photosynthesis, to storing energy as sugar and starch, and the use of these products to build cellulose, hemicellulose, and lignin, represent the biological tree. All these life processes take place within the big wooden structure that we see above ground and recognize as existing in the form of roots below ground. The wooden structure is the mechanical tree.


Longitudinal cracks are failures that are underway. These are among the most serious defects we see.

Risk assessment is focused primarily on the mechanical tree. We do not discount the biological functions when assessing risk, for the primary role of tree biology is to build, maintain, and defend the big wooden structure. However "biology" doesn't fall on your head but parts of the wooden structure of the tree may!

## Risk Assessment in Its Simplest Form

Risk assessment, in all of its forms, can be broken down into the answers to four questions:

1. What is the largest part of the tree that is likely to fail in the survey period?
2. Under what circumstances is that part most likely to fail?
3. In what direction is that part most likely to go?
4. What is the likelihood that people or property will occupy the target zone at the time and under the circumstances most conducive to failure?

Fruiting bodies (mushrooms) attached to the roots and buttress of a tree are viewed as positive indicators of decay. Root rot or decay in the base of the tree may be significant enough to lead to the failure of the entire tree from the roots. This forms the largest type of failure we see and brings with it the potential for the greatest consequences. A single dead limb over a park bench is a potential risk of a smaller size but may still require mitigation.

Fruiting bodies (mushrooms) call for an evaluation of the type of decay and the rate of decay to understand structural implications. Dryad's Saddle (upper image) is often associated with old pruning wounds. Berkeley's Polypore is easy to spot as its mushrooms often weigh 20 pounds or more.

Determining the circumstances most conducive to failure requires some knowledge of tree anatomy and how environmental loading can influence failure. If the decay is moderate, the likely conditions for failure may be limited to

wind-driven rain events. Conversely, if the decay is severe there may be little additional input needed for final failure.

The direction of failure is often influenced by tree architecture where the crown is asymmetrical or the trunk leans. Even leaning trees may behave unpredictably when failure occurs, as roots and trunk seldom part in a neat and tidy way. As a result, I frequently consider the target zone to include fifteen degrees to the right and left of the logical line of failure. Smaller parts, branches and limbs for instance, fail more predictably but may be deflected if they impact other parts of the tree while falling.

The big question, of course, is will people or property be in the impact zone when failure occurs. This is what I term "Target Potential" and is the key ingredient in risk assessment. Without a target there is no measurable risk of harm. A tree with a potential to fail may present a different level of risk because of its direction of failure or at different times of the day. A tree with root and buttress decay standing between a tennis court and picnic shelter may have a target in each direction, but if failure is most likely in wind-driven rain, the chances of hitting someone on the tennis court are quite low. However, if the direction of failure is toward the picnic shelter it is possible that all the tennis players will congregate in the shelter to wait out the rain, thus concentrating targets within striking distance.

## Visual Assessment Tips

The simplest risk assessment is a visual assessment, literally looking at the tree and asking oneself what might fail and what might be hit. A basic assessment brings in non-invasive tools such as a mallet and sometimes a steel probe or trowel. More sophisticated assessments involve resistance drills or internal imaging of the defective parts—but what should induce engagement with a risk-assessment professional?

- Some, but not all, fungal structures are evidence of pathogens and especially if they are attached to the trunk or roots there is a need for further evaluation.
- Cracks in roots, trunks and branches are failures that are underway, not future failures. They represent a structure that is in the process of failing and may continue to do so with little additional input.
- Holes from wildlife indicate decay that should be quantified. Internal hollows are used for various life process from nesting to feeding—woodpeckers, for example, utilize internally decayed trees with some solid wood surrounding the decay for nesting.
- While a single dead limb may represent normal senescence, dieback in the top of a tree or at the ends of limbs may indicate greater issues. The parts of the tree that suffer first when the roots or vascular system are compromised are those farthest from the roots. Staghorning, the dying back from the top of the tree or ends of branches in established trees, can often be associated with root rot or sapwood decay.

Above, left: nesting holes and large cavities are indications of internal decay requiring more information to evaluate risk. The presence of targets is a critical consideration in evaluating each type of structural defect and developing a mitigation strategy.

There are of course many other conditions that can lead to risk of failure in trees, and no tree is entirely free of risk-causing conditions. However, the landscape professional who sees the trees every day or is on the property frequently has a tremendous opportunity to conduct a routine visual assessment and see developing conditions over time before they prove dangerous. Engaging an experienced arborist with tree risk assessment training to assist with developing a plan of action when a potential problem is spotted is far better than waiting until the structural condition of the tree has degraded such that there are no reasonable arboricultural interventions left to alleviate the risk of harm, other than removal of the tree.

Further education in tree risk assessment can be acquired through programs sponsored by regional ISA chapters, the Connecticut Tree Protective Association, the Long Island Arboricultural Association, and occasionally from the Morris Arboretum of the University of Pennsylvania. Independent study is offered using the Tree Risk Assessment training manual available on the ISA website. Periodically the New York State Arborists Association sponsors a Tree Risk Assessment Qualification course, providing two and a half days of classroom instruction prior to the written and practical examination.