

DETECTIVE DENDRO THE DIAGNOSTIC SLEUTH

By Guy Meilleur



The Case of the Languishing Leylands

I was installing the new screen in the back door of the office, thinking back to The Case of the Waning Waxmyrtles, where Codit and I got to the root of a declining *Morella* hedge. The landscapers learned new ways of mulching, watering, fertilizing, and pruning to ANSI standards, so the hedge was looking much better. I was ruminating

on the many benefits of screens of all types when the phone rang.

"Hello, Detective Dendro? My name is Layla Compressa, and I have a tree question. Branches in my evergreens in the backyard are dying, and I don't know why. We planted them five years ago and they have grown quite nicely in that time, but now there are brown branches in one of them. I'm also worried about the one on the left end, because some of its needles have yellow on them. Can you help me?" she asked.

"Yes, I can," I assured her. "We are specialists in the diagnosis of diseases, disorders, and arboricultural abnormalities. Is that yellowish one on the north end, ma'am?" I asked.

"Let me see ... Yes, I believe it is," Layla answered. "They are a row of six, and the sun comes over them in the morning, so, yes, the one on the left is on the north end."



We went to the backyard and immediately saw the problem.

"Interesting," I said. "Let me get your e-mail address so I can send you a statement of our services, and you can reply with your address and other contact information."

Codit downloaded her reply, printed out a map and the work order that she agreed to, and we were on the way. The neighborhood was a good one, but the yards were small. Layla's house was easy to spot. It was full of conifers. She met us in the backyard, and pointed to the brown branches. A bird with a red head and a yellow belly flew away as we approached.

"Good day, Layla," I said. "These are Leyland cypress, × *Cupressocyparis leylandii* ..."

"X?" Codit interrupted. "Why is there an X in the name? Are they mutants, like the X-Men, or is one of their names taken out, like Malcolm X, or ..."

"Codit, let's not let copious curiosity kill the case," I told him. "Please use the hand pruners to clip off the brown branches that you can reach. Also squeeze the needles of those branches that are wilting. If the needles crumble that means that they are dead, so remove those branches, too. For safety's sake, between cuts please give your blade a spray from that blue bottle."

Codit did the pruning as I scanned the upper crowns with my binoculars and then took pictures of the site. There was a solid wooden fence behind the trees, which had bushy foliage from the ground up. There was a wide bed with 2 to 4 inches of pine mulch around the trees. They got full sun from morning to midday, when they were shaded by a grove of tall hackberry (*Celtis occidentalis*) trees. There was a gradual slope to the south, and the soil was above average for the area.

Codit brought over the branches and held one up. "Look," he told us, "there are some sunken spots, with black dots inside and holes with brown and purple drops coming out."

"Here is the one with the yellow needles." Layla walked me over to the one on the left.

"Fascinating," I said. "The tips of all the branches of this northernmost tree are flecked with a light yellow, but the rest of the crown seems to be in good condition. Then there are all of these small webs near the tips. The other five trees all have sticky streaks of sap on the stems, but this one does not."

"So what do you think the problem is, Detective Dendro?" Layla wondered. "Without these trees, our view from our new deck would be ruined by our neighbor's big house and messy yard."



Yellow tips on Leyland cypress. Notice, also, the small webs near the tips.

I thought about the yellow tips and the sticky drips and the yellow belly and the five to the south leaking and the one to the north not. I went over our system of inspection, wondering what we could have missed. I pondered the peculiar proclivities of predators and their strange dining habits, and tangled webs, and mites and men, when I realized it was past lunch time.



Dripping sap could be seen on the stem.

“Layla, I have an idea why your Leylands are languishing,” I told her. “Please excuse us while we have lunch, and I will return to conclude this complex case.”

Turn to page 60 to find out what our team forgot to do, and what ails the trees.



WHAT'S THE DIAGNOSIS?

We entered a nearby diner, where I saw two arborist buddies in a booth having hamburgers. We walked over to their table. "Hello, Electra. Hello, Ashley," I said. "This is Codit Clutz, my able assistant."

"Hi, ladies," Codit smiled. "Are these seats taken?"

"Sit right down, Codit. I'm Ashley Green—city arborist, and this is utility arborist Electra Klein. Good to see you, Dendro. What brings you to the neighborhood?"

"Well, Ashley," I replied, "Codit and I were called to inspect some Leyland cypress on a property around the corner. Waitress, I'll have double onions on my burger." Codit and I told them the whole story between bites.

"Leylands are not a utility's favorite plant," Electra said. "We have to prune them all the time. The cuts have to be to small laterals, but given the species' growth habit and vigor, they respond well to the heading. Too well, really—after one growing season, the laterals curl up and shoot toward the sky. They can also topple over and



Proper heading cut on a Leyland cypress.



One year after reduction to small laterals, the tree assumes its natural form with a pointed top.

knock the lights out. Damaged conductors endanger everything in the area."

Codit eyed Electra as he pulled the samples out ... "See the sap coming out of these holes?" he said. "I saw the culprit, a yellow-bellied sapsucker."

"Chill, cowboy," Ashley said. "I grew up in England, where this plant originated in 1888. A freak of Nature they are, an 'intergeneric' cross (hence the X) between Monterey cypress (*Cupressus macrocarpa*) and Alaska cedar (*Chamaecyparis nootkatensis*). Wars are waged when someone wedges a row of leylandii, lay-land-ee-eye as we call them, along the fence. Their neighbors hate them for their hybrid vigor when they shade their gardens. Laws were passed to keep the peace, but the battles rage on."

"We have a similar situation," Codit said, looking up to Ashley. "These leylandii are against a fence, and they're in bad shape. Those birds ..."

"Look closer, Codit," Ashley said gently. "The bird is innocent. That sap is dripping due to Seiridium canker. Resin comes out of the bark in infected areas and flows down the diseased branches. The cambial tissue beneath the oozing is discolored with a reddish brown color. Here, you can use my knife to find out."

"Sure enough, you're right!" Codit said. "But that still does not explain the yellow tips on the one leylandii that isn't infected. What's wrong with it?"

"That looks more like variegation to me," Ashley said. "Many cultivars have been selected that differ in coloration, but none are resistant to Seiridium canker. That one may have been planted separately, and the five infected trees must be under some other stress. I think that you boys forgot the first job of a tree inspector—better get back to work!"

Back in Layla's yard, Codit and I took out our digging tools, pulled back the lower branches, and started searching for the trunk flare, as Ashley hinted. "Oh, NO!" Codit exclaimed. "Not only are these planted too deep, but the packaging was left on."

It was a gruesome sight. The basket wire cut into the buttress roots. The twine cut deeply into the trunks, and we couldn't pull it all out. No packaging was left on the variegated Leyland,

and its trunk flare was at grade, following ANSI standards. I prescribed the removal of as much twine and wire basket as possible, and a reduction of 30 percent of the Leylands' height, to lessen risk of toppling and to increase light and air flow to the interior of the plant. As Electra had reminded me, this species responds well to heading. I told Layla



Seiridium canker at base of branch.

the disease was not likely to improve, and to plan for replacing the five sick cypresses.

Later, Codit said, “Man, that Ashley really knows her stuff, but I’m bored with playing Find the Flare all the time. Can I practice climbing this weekend?”

“Absolutely,” I replied. “We should call Electra to join us. She is a chapter champion, so maybe she will help you with your footlocking technique.”

Guy Meilleur is a Board-Certified Master Arborist, climbing and consulting with Better Tree Care Associates. He is influenced by the achievements of Victor Hugo, Alex Shigo, and women in arboriculture. Comments can go to guym@bettertreecare.com.

Photos courtesy of the author.



Wire basket on buttress root; twine in tree.