



DETECTIVE DENDRO THE DIAGNOSTIC SLEUTH

By Guy Meilleur

The Case of the Fantastic *Ficus*

It was a shady day in Hong Kong, and the urban forest knew how to keep its secrets. But far below the towering canopy, rooted in the rhizosphere, one man was still searching for solutions to trees' persistent mysteries: Detective Dendro, Arborsleuth.

Two weeks of investigations in Hong Kong went by like two days. Working as an intern with the Asia Tree Police, Codit was introduced to some amazing cases of exotic arboriculture: *Aleurites* gone awry, *Delonix* playing tricks, and the towering *Bombax* bamboozling all who viewed them. I went along for the ride, reviewing Codit's cases with him along with some intense sightseeing in forests rural and urban. One thing the sites in Hong Kong had in common with other urban forests I'd visited was an uneven approach to pruning trees for management of size, risk, and health.

Sometimes they got it right, but more often there was too little taken off or, most common, way too much. I was looking hard for answers to the age-old pruning question: How much is just enough? It was becoming a Goldilocks-type obsession and I needed a break. Codit

heard about a bus tour the next Sunday that would feature several specimens listed as OVTs, Old & Valuable Trees. I used most of our remaining discretionary funds to buy two tickets.

On Sunday morning we arrived early in hopes of getting a good seat on the double-decker bus. Our host, landscape architect Gavin Jacquets reviewed the challenges of finding suitable plant material for traffic medians and maintaining huge trees that grew out of walls with nothing but pavement around them. "Today we have cockatoos with beaks that bite off branch tips one or two centimeters (0.35–0.7 inches) in diameter," Gavin began. "But just 9,000 years ago, a blink on the evolutionary time scale, flocks of much larger birds were clipping larger tips, and large herbivores were crashing into and grazing on trees."

Our minds were full after the tour, but our wallets, and stomachs, were empty. When Gavin invited us to lunch, and mentioned that two of his *Ficus* trees were busted up by typhoons the previous summer, Codit spoke up in a hurry. "You're in luck, Mr. Jacquets. We always bring our climbing gear with us wherever we go, and we have loads of experience at restoration pruning after storms. But we'll need someone trained in safety procedures to work along with us, if we are both climbing." Codit sounded worried as he watched me nod. "We want to follow the local safety standards and regulations as well as the Z133.1, for the U.S."

A local gent standing next to Gavin volunteered, "My name is Lo Jau. I have the necessary training, and would be pleased to assist from the ground."

"It's all set, then." Codit grinned. "We'll get our gear and meet you in an hour."

Backpacks stuffed with ropes and saddles, we trudged up the winding path. At the top of the ridge were two very different-looking trees, both with broken branches on the northeast side. We wolfed down bowls of spicy South Indian curry as Jau finished a game of chess with Gavin. Then he showed us the trees.

"The dark-barked tree resembles *Ficus fraseri*, the sandpaper fig. The gray-barked tree you know as *Ficus microcarpa*, the banyan tree so overplanted in Hong Kong."



Black ants nest in sunken areas in trunks and branches of smooth-marked ficus, 'banyan' trees. When their nest is disturbed, they can swarm out by the hundreds.

“Yeah it’s everywhere,” Codit noted. “They’d be boring, if they weren’t so cool. What’s that stuff in the depression on the lower branch?”

“It appears to be a nest of black ants,” Jau said. “They...”

“Say no more,” Codit said, rocking his throwbag back and forth as he changed his aim. “I’ll take the sandpaper fig; I’m not fond of insects. Beauty before age!”

Jau frowned; I wasn’t sure why, so I raised the binoculars hanging around my neck and watched. Codit’s throwball hit a wad of leaves high in the crown. “Hmmf, looks like some kind of witch’s broom. No worries, the line’s in a good fork.”

I gave a puzzled look to Jau, who said, “Codit, you might want to reconsider. The...”

Codit cut in, “No way, José. Bugs are not my thing.” He footlocked up in his speedy style, while I opted to walk up a long ladder into the low-branched banyan.

Tying in while Jau set up the ladder, I ascended and installed a redirect, walked a thick smooth limb, and went to work with the polesaw. The work went smoothly until Codit started hollering. I turned to see him swatting himself, stomping his feet, and calling down to Lo, “Why didn’t you tell me they call this tree ‘sandpaper’ because it’s itchy? Is it hairs on the leaves that makes it sting so?”

At the top of the ridge were two, very different-looking trees, both with broken branches on the northeast side.



Foliage blocks the view of coastline, sea, and sky. Properly specified reduction pruning opens the view while maintaining the tree’s health, safety, and dignity.

Jau suppressed a laugh, as if he anticipated these antics. “Perhaps an allergic reaction to the spicy lunch is aggravating your condition. The clues are present in the colors on our chessboard, and in your mentor’s advice.”

What’s the matter with Codit? Turn to page 60 to find out.



WHAT'S THE SOLUTION?

Hopping from one foot to the other while the limb he stood on swayed, Codit checked to see his tail was clear and rappelled to the ground faster than a soldier out of a helicopter. He rolled up his pant leg and hollered, "Ants! Red ants!" Stomping his feet and swatting as he unclasped his saddle, Codit was making a million motions a minute, gradually calming down as the last of his attackers was vanquished.



When outer branches are damaged, trees respond by sprouting new growth. Over time, a buttress is built at the base, transforming the epicormic sprout into a bona fide branch.

I made a few extra cuts on the broken banyan to improve the view, and descended to commiserate with my colleague. "Gosh Codit, isn't it ironic that you avoided the banyan tree because of harmless black ants? That wad of leaves up there wasn't a witches' broom, but a nest of biting red ants."

"Isn't it ironic—it's the good advice that I just did not take. Who would have thought... it figures." Codit shook himself, calming down as the pain from the bites went away. "But you guys knew what was going to happen all along, didn't you?"

"With my binoculars I could see it was not a witch's broom," I confessed. "But that's all I could see."

"I regret your discomfort," Jau apologized. "The ants are pests that local arborists are painfully accustomed to. Your eagerness to avoid insects led to some lessons, it seems."

"Yes, Lesson #3 was to avoid disturbing ant nests," Codit began. "Lesson #2 was to use binoculars in my pre-climb assessments, for identifying key structural features, as well as potential trouble spots..."

Gavin walked up and said, "I've been watching your pruning technique, and it's taught me as a lesson I'd like to share with you. Come on up to the patio; tea and snacks are being served."

Codit did not have to be told twice. We bundled our gear, washed up, and found Gavin and Jau enjoying the new view of Victoria Harbor and a cup of oolong tea.

"I have some essential oils for those bites if you need it." Gavin passed a small bottle into Codit's outstretched hand. "I've been thinking... Trees around the world have adapted to the activities of animals that are now extinct. Humans are responsible in large part for the disappearance of these creatures. What are we doing to replace their contributions?"

I dunked a cookie into my tea, thoughts swirling like the crumbs in the murky hot liquid. "This seems related to the ecological imbalance caused by humans killing off the natural predators of pestilent herbivores, such as white-tailed deer. Their overpopulation wipes out seedlings of desirable species and spreads Lyme disease to humans via bloodsucking ticks. In North America, large herbivores were responsible for expanding the native range of many trees. Now humans are good—maybe too good—at distributing plants around the globe."

Jau reached into his backpack. "Big trees no longer grazed, small trees excessively grazed, all of these problems can get prevention through human intervention. Restoring balance to nature is the goal, high and low, from the canopy to the forest floor." He pulled some sliced tree sections out, one by one. "When I want to know more, I look inside. See how the trees turned sprouts into branches, by adding layers of tissue to buttress their growth and movement? I have heard this called the epicormic/endocormic transition."

Gavin examined a block of wood and exclaimed, "This is it! Through their history, trees have adapted to having their outer branches being reduced by storms and beasts. This may be the answer to arboriculture's most urgent question—how to specify pruning to manage health and safety. Every tree mystery is like a game of chess with Mother Nature. We must study her previous moves, and anticipate her next move. Her bishop may have the right angle to end the game, but you can "castle" to protect your king."

I leaned back and took it all in. Old paradigms melted away as I viewed the evolution of arboriculture through the wider lens of natural history. Jau smiled warmly and asked, "Codit, you never did tell us what your Lesson #1 was."

Codit blinked and set down his cup, returning to the present. "I learned to respect tree associates, like those black ants. They are innocent until proven guilty. Less judgment, more thought, and a balanced view of trees and all organisms will make me a better arborist."

Gavin raised his cup. "A toast to better tree care, and better trees." Four glasses clinked, and a musical ring filled the air. "When you return to Hong Kong, we can apply this understanding on a much wider scale."



Red ants feast on the flowing latex from this fructiferous ficus. Alternately categorized as **F. superba** or **subpisocarpus**, it is also known as the bird fig for the feasts it provides those beneficial associates.



Guy Meilleur is an arborist and aerial consultant with HistoricTreeCare.com. He has authored 26 articles in this series.

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