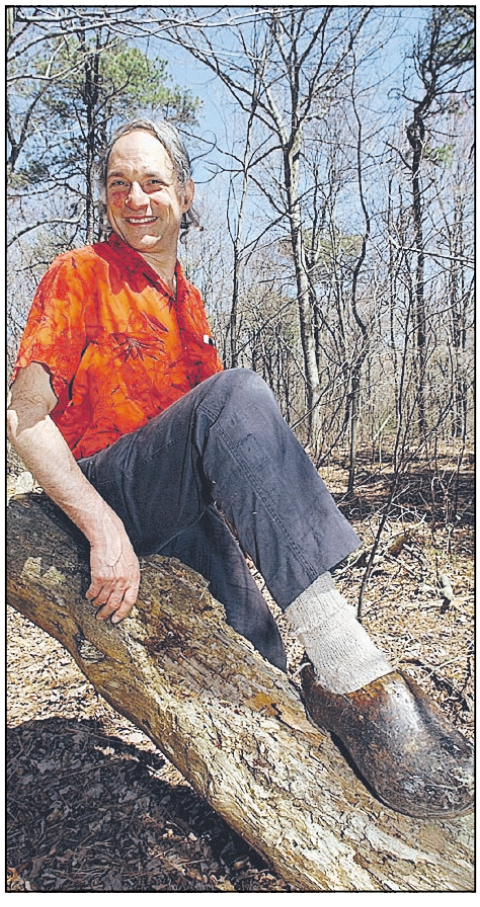
The tupelo hunter

Daniel Karpen is looking for the Island's oldest trees

Daniel Karpen, tramping through the Massapequa Preserve and, right, in his signature clogs, says he can tell the age of black tupelo trees by their bark patterns.



ON THE COVER: Karpen takes the measure of a tree in Massapequa Preserve. Newsday's Daniel Goodrich took the picture.

"But those *trees!* Those *trees! Those Truffula Trees!*
All my life I'd been searching for trees such as these."
— From "The Lorax," by Dr. Seuss

BY BRYN NELSON
STAFF WRITER

The black tupelo is hard to miss. The largest tree in a small grove at the edge of Massapequa Preserve, it announces its considerable presence from the parking lot.

The animated man in the Hawaiian shirt and wooden clogs telling me — no, announcing — that this tupelo is perhaps more than 300 years old is equally hard to miss.

As a boy growing up in West Hempstead and Lloyd Harbor, Daniel Karpen often wondered if any old trees survived on Long Island. Karpen is now 56, but his child-like wonder remains.

"I suspect this old one is in excess of 300 years!" he says now of the tree looming above us. He will make many similar declarations over the next month. Many of them will require exclamation points.

And many of them — despite my doubts — could even be true.

Trees, in the words of Dr. Seuss, became the centerpiece of a morality play pitting the greed of the Once-ler against the warnings of the Lorax.

"Mister!" he said with a sawdusty sneeze,
"I am the Lorax. I speak for the trees."

Trees, in the words of Daniel Karpen, have become the centerpiece of an environmental mission. For the Winter 2004 Quarterly Newsletter of the Long Island Botanical Society, Karpen wrote of discovering 10 sites on the Island with old-growth black tupelo trees. Three co-authors assisted him in his search, including Bruce Kershner, co-founder of the New York Old Growth Forest Association.

"We want to get these documented so people appreciate them and they get preserved," Karpen says of his finds. Nearly all the sites are already on protected land. But an unusually old tree could spur new pride in an overlooked park, not to mention its potential power in fights over preserving other open spaces.

Forgotten trees

Since they tend to grow in wetlands, black tupelos often escaped the fate of other trees cleared for farmland. The timber industry likewise ignored the notoriously hard trees whose wood warps so easily. Largely forgotten, the slow-growing tupelos emerged from the shadows only briefly in the fall, with a flourish of brilliant red leaves.

But tupelos may yet have their day in the sun. At the Wertheim National Wildlife Refuge in Shirley, Karpen and Kershner extracted straw-thin cores from two old-looking trees, in a procedure akin to taking a biopsy. By counting the annual growth rings within a wooden core, researchers

can deduce a tree's age.

Kershner tallied 260 years for one tree, and *three-hundred-sixty-three* years for the other. Karpen lingers over each syllable because it draws attention to the fact that, well, it's a really old tree!

And there's something else.

Karpen, who received a bachelor's degree in forest resources from the University of Washington, believes other tupelos on the Island are quite old because their bark patterns tell him so. By 200 years, he explains, deep ridges form around each geometric bark piece, and some of the pieces loosen and fall away. By 250 years, bald spots appear where the bark has fallen off and the ridges around the remaining plates become very wide. And on tupelos between 300 and 400 years old, the bark re-thickens and displays new ridge formations or long plates that separate from the trunk along the sides.

A black tupelo that Karpen thinks is over 300 years old.

But Ed Cook, a tree ring expert at Columbia University's Lamont-Doherty Earth Observatory, urges caution. "The tendency of people is to overestimate tree ages because it's fun to find old trees," he says. "The only way you can authentically claim old growth is by coring the trees."

Karpen is not easily dismissed, however. A self-employed consulting professional engineer and inventor, he has developed a knack for clever engineering solutions and arcane regulatory roadblocks, the latter often wielded against developers during frequent Huntington Town Hall appearances. Karpen takes pride in his seven patents — including one for TruView glare-reducing headlights — and for his role in environmental victories, including the preservation of Huntington's 209-acre Froehlich Farms.

With his offbeat theatrics, colorful shirts and wooden clogs, he is not often forgotten.

The burst of spring

On this Tuesday in April, Massapequa Preserve seems poised to explode with possibilities, and Karpen is dressed for the occasion. His clogs have been paired with alarmingly frayed tan woolen socks, navy pants and a bright red Hawaiian shirt. His thinning, grayish hair reaches toward his shoulders in a few loose curls, while some of the wispier strands dance in the wind in clear defiance of the black comb in his shirt pocket.

"Walking around through the poison ivy and measuring the tree," he narrates while working on his first old-growth contestant of the day. The converted dimensions on his metal tape measure show 29 inches in diameter.

Motioning toward the flattened tree top, he tells me the accumulated breaks in the uppermost branches provide another indication of great age.

As we walk deeper into the woods, Karpen looks about in awe. The tupelos are easily 200 to 300 years old, he says, his voice rising with excitement. Of the preserve's 423 acres, "I would estimate that about 100 acres are old growth," he adds.

But exactly when does a tree become an old-growth tree?

"I would define old-growth trees to be trees at least 175 years old," he says the first time I ask him — though he admits the number is fairly arbitrary. When I press him, he pooh-poohs the "old growth" debate as largely philosophical. After all, some trees never reach old age but grow in undisturbed tracts, while other tracts disturbed by colonists may have since produced trees exceeding 250 years.

"How many angels can dance on the head of a pin?" he asks. His rhetorical question annoys me, but I learn later that "old growth" has been defined in dozens of different ways. Some researchers no longer even consider the term useful.

Discoveries of old trees on Long Island, on the other hand, have been rare. Ed Cook has dated a stand of white oaks from Montauk's Hither Hills State Park to the 1720s, based on their tree rings. Karpen and other members of the New York Old Growth Forest Association have launched their own searches. A stand of chestnut oaks in Oyster Bay likely dates back more than 300 years, Karpen says, based on the tree rings in a stump there.

He has placed most of his bets, though, on black tupelos.

As if eyeing contestants

Karpen's quirky but effective history of environmental activism and forestry background clearly bolster his credentials. But a question nags me: Is it possible to want something so much that an environmental quest becomes a quixotic crusade?

We hike into the park, and almost every tree elicits an exclamation, as if from a benevolent judge eyeing the contestants in a beauty pageant.

See TREES on G10

NEWSDAY PHOTOS / DANIEL GOODRICH

The trees on preserves are safe, but Karpen also hopes to save those not on protected land.

Karpen surveys a wooded area near his house in Lloyd Harbor.

Tupelo hunter

TREES from G6

"Look at how thick the bark is up there," he says of one large entrant. "That's an indication of great age!" he exclaims in a high-pitched, nasal voice. He estimates its age at 350 to 400 years. "Definitely 350 years at a minimum."

Other large tupelos demand separate stops: A "monster" by a nearby bike trail, and a lone survivor in a bedraggled lot behind a King Kullen in Wantagh.

There was a long fight over the lot, Karpen says, one that he joined in the late '80s. In the end, the three acres became a Nassau County preserve. Two Mylar "Over the hill" balloons bob in the upper branches of a tulip poplar, as if in mock celebration of the lot's reprieve.

Finally, he finds the tree he's been looking for, a black tupelo with twin trunks. The larger of the trunks measures 25.6 inches in diameter, but a storm has cleaved its top at about 20 feet. Karpen estimates its age at 200 years, an old-growth find by his definition.

Mission accomplished, despite a new hole in one of his tattered socks.

A little less than three weeks later, I meet Karpen at his Lloyd Harbor home for a second old-growth tour. Slipping on a pair of clogs, one of three lined up in his front hall, he insists on first showing me the thin wood core he extracted from a large tupelo and mounted on a small piece of plywood. We saw the tree by the creek in Massapequa Preserve — remember? The core's rings are so closely spaced that they can be barely discerned with a small black magnifying lens.

"Isn't that amazing?" he asks.

Hidden treasures

Karpen then leads me to a two-acre woodlot preserved by the benevolence of three neighbors. Technically, we're trespassing, but he's sure they won't mind. He wants to show me three chestnut oaks that are nearly 200 years old, and there's an old tupelo somewhere in here.

As we clamber over logs and pass an abandoned plastic tricycle in a dry streambed, he lists every living thing within his field of view, like a botany pro-

NEWSDAY PHOTOS / BRYN NELSON

Surrounded by walnut seedlings, Karpen cracks a black walnut with the back of an ax on his living room floor.

fessor dictating his finds.

Hop hornbeam trees and tulip trees, American beech and red maple. Oh yes, swamp white oak, witch hazel and black birch. And over there — sweet bay magnolia, "but I believe it's introduced." Shadbush and sassafras and cat brier. And starflower.

Shagbark hickory, too.

"Also, there's black walnut in here. I forgot to tell you."

And, finally, an old-growth black tupelo, maybe the oldest tree in the forest. "Let's say 200 to 225. Could be older."

"I've found 20 stands of black tupelo on Long Island more than 175 years old and I believe there's more to be discovered," he declares before leaving the lot. "We are still discovering more old growth in the East that we never knew about."

Karpen hasn't been here for more than a year, but the hiatus only seems to fuel his enthusiasm. "Have you ever seen a more magnificent forest in all your life?"

At the 20-acre West Hills Nature Preserve in Huntington — our final stop — I imagine that Karpen's hikes all follow the same meandering route, with species to name, aspects of nature to proclaim, and somewhere around the bend, a noteworthy tupelo or two to find.

And, finally, there they are. Seven old black tupelos have formed a rough semicircle around a shallow vernal pond.

"Aren't these trees magnificent?" he asks. It is by now a familiar question. "These trees are at least 250 to 300, and possibly mooooore."

And on it goes. Karpen lectures on the wonders of nature and urges me to buy his glare-reducing headlights, and then offers dating tips.

"Do you want to know what a good way to pick up girls is?" he asks during one drive.

"Um, what?"

"Wooden shoes!"

They're a great icebreaker, he explains.

It occurs to me later that Karpen has nurtured his goofy eccentricity with the same care as the 17 black walnut seedlings populating his living room.

Trees have formed an integral part of his life, from the firewood stacked on the tiled living room floor, to The New York Times stacked in towering piles on his aqua-colored kitchen chairs. His white pails filled with the walnuts he cracks with the back of an ax, his four pairs of wooden clogs, his nine handmade wooden bowls — do I want to buy one? — and the Sharp SF-7900 paper copier in his bedroom: All owe their existence to trees, and each is an homage, however unusual.

Carole Neidich-Ryder, the curator of green space preserves for Nassau County's southern half, tells me her territory was once filled with farms and paper mills. "So I would be surprised that there would be something left here," she says.

But there was Daniel Karpen, coring a black tupelo at Massapequa Preserve with her permission, and then hurrying home to count the tree rings.

"I would be overjoyed to find an old-growth forest," she says. "It gives a different slant, or more depth, to speaking about the forest here. People wouldn't take it so lightly."

And Karpen's role?

"Dan happens to be a very creative, thoughtful science guy," she says. "He's always inventing things. He just happened to hit on this thing and he's ecstatic about it."

Verifying his finds, she adds, would help to preserve open space and benefit everyone.

But not every tree reveals its true age so readily.

400-plus growth rings

When I meet Neil Pederson, he is barefoot in the tree ring laboratory at the Lamont-Doherty Earth Observatory. A graduate student of Ed Cook's, Pederson is exceedingly polite, unfailingly diplomatic, and intensely interested in old trees.

For his show-and-tell, he retrieves a small box from a back office and sets it on a table. Inside are wood-mounted plugs taken from 29 living black tupelo trees in New York's Adirondacks. More than two-thirds of the plugs contain 400 annual growth rings or more.

One black tupelo dates to at least 1492. Another to 1436.

Pederson figures he's cored more than 3,000 trees in all.

"I still get fooled by looking at a tree and saying, 'Wow. That's going to be such and such an age,' " he says.

With their bark analysis, he maintains, Daniel Karpen and other enthusiasts are keying in on tree vigor. "It means a tree *can* be old, but it doesn't mean it *has* to be old." Nevertheless, he welcomes the enthusiasm. "I like what they're doing. They're at least raising awareness."

And it isn't unreasonable to think that 300- to 400-year-old black tupelos might yet remain on Long Island. "Proving it is going to take time," he says.

Two weeks later, the messages left on successive mornings are nearly identical. Karpen isn't sure whether he's told me, but he cored a tree in Massapequa Preserve.

"The partial core was," and he pauses for effect, "three hundred-fifty-five years. Again, *three-hundred-fifty-five* years." In both messages, the punch line arrives in the familiar tone that suggests great importance.

"So, basically, that's the situation," he says at the end of the first message. "The trees are as old as I said they were."

Then he laughs slightly, a slight exhale. Is it aimed at me for doubting him? Or simply a sound of satisfaction?

On the third morning, we discuss the news, and his announcement arrives as if for the first time. It took him two hours to count the tiny rings with his magnifying lens. And since he only retrieved about 8½ inches of the tree's 12-inch radius, he figures the tree must be 425 years old — maybe more.

"It's simply astounding on Long Island!"

685 years of history

In the Northeast, New Hampshire probably has the best claim on astounding tupelos, at least for now. Dan Sperduto, a senior ecologist with the state's Natural Heritage Bureau, says one of the black gums, as he calls them, contained at least 679 tree rings in 1998, making it at least 685 years old today.

Is a black gum hard to core?

"It is, relative to many others," he says. But with a little experience and preparation, a researcher can arrive at a reasonably accurate age.

And the bark? I tell him about Karpen's correlation between tree bark and age.

"I can relate to what he's saying," Sperduto says. "The oldest ones that we cored did tend to have those qualities, but we didn't quantify that in any way."

And then it dawns on me. Karpen hasn't seemed particularly methodical or patient. He hasn't taken meticulous notes, or often returned to the black tupelo sites — now 23 and counting — where he's already been.

And yet, for the most part, he's proven his point. Instead of tilting at windmills in a Hawaiian shirt and clogs, his singsong, scattershot, free-spirited message has been far simpler.

And far more powerful.

"Look at the trees!" he has insisted again and again.

"Aren't they amazing?"

And he spoke with a voice
that was sharpish and bossy.
"Mister!" he said with a
sawdusty sneeze,
"I am the Lorax. I speak for
the trees."

Only instead of the magnificent Truffula Trees of Dr. Seuss, this Lorax sought the unsung tupelos that survived because they were considered useless. But with their discovery, the gnarled old trees may yet prove far more valuable.

Just don't ask him exactly how old they are.