

THE MUSHROOM HUNTERS

An edible-gold rush.

BY BURKHARD BILGER

Two hours east of Eugene, Oregon, in the rain shadow of the southern Cascades, the forests begin to thin out. The volcanic peaks that loom above them are among the most active on the continent, and every so often one of them blows. The Klamath Indians still talk about the eruption of Mt. Mazama, seven and a half thousand years ago. It left a hole in the ground which is now called Crater Lake and covered the area in pumice up to three hundred feet deep. The ash still lies so thick that logging trucks send great plumes of it trailing behind them, and even old-growth trees have the spindly half-starved look of battlefield survivors. It's the kind of land that only a mushroom could love.

When Kouy Loch first arrived, on a chilly September night in 1994, he was looking for matsutake. The mountains were filled with them, he'd heard. They grew beneath the pines in the national forest—some of the most valuable mushrooms in the world—and anyone with a ten-dollar day pass could pick them. Loch's cousin Saraong, a veteran picker from Washington, had agreed to show him a good spot. The two men drove down from Tacoma that night, in separate cars, and pulled up on a gravel road deep in the forest. "This is the place," Saraong said when Kouy walked up to his window. "Matsutake country. Just go in there and pick all day." Then he drove off with a wave, leaving Loch alone by the side of the road.

The air was sharp and sweet that high in the mountains, scented with pine resin and recent rain. Loch stood in the dark for a while and listened. In the distance, he could hear the crackle of gunfire. More than a thousand other pickers were crowded into a campsite a few miles away, on United States Forest Service land. They gathered matsutake by day and sold them in the evenings to mushroom buyers in the nearby town of Crescent Lake Junction. Many of the pickers, like Loch,

were Cambodians, unfamiliar with the area. They carried pistols to protect their matsutake patches and to send signals to one another in the woods. (Every few years, one or two got lost and died of hypothermia.) That night, though, they were just celebrating, shooting at the stars: the matsutake were selling for a hundred and sixty dollars a pound.

Loch had first heard of the Great Matsutake Rush two years earlier, from other Cambodians in Stockton, California. They were migrant pickers, for the most part, who spent the winter in California and the rest of the year following the wild harvest down the Pacific Coast. The season began in the spring, with morels in the Yukon or British Columbia, swung south to Montana for summer huckleberries, then west to the mountains and coastal forests of Washington and Oregon. You could pick porcini, chanterelles, and matsutake through the late fall, moving steadily south, then switch to hedgehog, black trumpet, yellow foot, and the occasional Oregon black truffle, tasting of pineapples and musk.

North America has an astonishing variety of mushroom species, but only a fraction of Europe and Japan's demand for them. The mushrooms we eat are almost always cultivated: buttons, portobellos, oysters, and shiitakes, grown in damp, murky hangars, on beds of compost or sawdust laced with spores. Interest in morels and a few other wild species has risen in recent years, but matsutake are still barely known. They tend to grow in remote areas—the jack-pine forests of Ontario; the arid mountains of central Mexico—and the deer usually get them first: their potent smell and snowy-white caps give them away. Even field guides are less than encouraging. The matsutake's "tough, chewy texture does not appeal to everyone," David Arora wrote in his 1979 book "Mushrooms Demystified." Its odor, he added, is "a provocative compromise between Red Hots and smelly socks."



Kouy Loch hunting matsutake mushrooms. In a

Despite its unsavory reputation overseas, the Japanese prize matsutake above all other mushrooms. They almost always eat them fresh, in the fall—a few shavings can elevate a soup to sublimity, they say—but never seem to have enough to go around. Many matsutake patches were once off limits to all but members of the imperial court, in the early harvest



good year, a thousand pickers work out of a camp in the Cascades. Fortunes have been made. Photograph by Yola Monakhov.

season. A single mushroom, so young that its hood still clung to its shaft, was considered a fine gift for an aristocrat—the more phallic the better. (*Matsutake* is slang for penis in Japan; in some courts, women were forbidden to speak its name.) These days, anyone can pick matsutake, but few can afford them. A mushroom that sells for fifty dollars a

pound in Oregon could bring three times that in Tokyo.

Loch was late to the rush and a novice as well. He worked as a mechanic in Stockton and hadn't picked mushrooms since he was a boy in Cambodia. (He used to roast them in the woods with the hummingbirds he killed with his sling-shot.) When he asked the other pickers

if he could tag along, they said no. Their patches were their livelihood, and Loch looked like a liability. He was a tall, stiff-backed thirty-three-year-old, with fierce eyes and handsome, slab-sided features. But he'd lost a leg to a land mine as a young man, and wore a prosthesis. Picking mushrooms at six thousand feet was hard with two legs, they told him. "We

don't want to have to carry you down the mountain."

On his first morning in the Cascades, Loch woke up in his minivan at around seven-thirty. He ate a quick breakfast and headed into the woods, keeping a nearby lake in sight so as not to get lost. The area didn't look promising, despite what his cousin had said. Matsutake were supposed to prefer open, airy forests of pines a few decades old, and these barely came to his shoulders. By two in the afternoon, he hadn't found a single matsutake. The stump of his leg was beginning to blister against its stirrup. He was thinking of abandoning the search when he noticed a small mound in the pine duff, like a quonset hut for a gnome. He found one matsutake, then another, then several others in a ten-foot "fairy ring" around a tree. Within two hours, he had eight hundred dollars' worth in his bag.

To a mind intent on mushrooms, they can seem to be everywhere and nowhere at once. Most are merely the surface features—the strange fruit—of much larger organisms known as mycelia. Their

mazy tendrils creep beneath the forest floor, over rocks and roots, under bark and leaf litter, through rotting logs and decaying bones, digesting the dead and sustaining the living. Fully half of a forest's biomass lies belowground, and half of that is fungal.

The matsutake is symbiotic with evergreens. Its mycelia latch on to their roots, pumping them full of water and nutrients—without mycelia, most trees would probably starve or die of thirst—and getting a steady drip of carbohydrates in return. Other species have less benign arrangements. The world's largest known organism, discovered in 2003, is a monstrous mycelium that preys on fir trees, causing their roots to decay. It covers more than two thousand acres in eastern Oregon, and may be more than eight thousand years old. Yet if you took a walk in those woods you might never know it was there.

The kingdom of fungi is so vast and varied—it also includes yeasts, molds, and lichen—that early taxonomists labelled one of its branches "Chaos fungorum." One species eats granite; another grows in Antarctica, an inch or so every

five hundred years; yet another thrives in a Chilean desert on a diet of fog. Fungal spores are so lightweight and compact that a single bracket fungus can release thirty billion of them a day. The air we breathe is thick with spores.

Given the opportunity of a weakened immune system, some fungi are more than happy to colonize our bodies. In "Mr. Bloomfield's Orchard," published in 2002, the mycologist Nicholas Money recalls seeing "photographs of ink-cap mushrooms growing in a patient's throat, a little bracket-forming basidiomycete in a gentleman's nose, dead babies covered in yeast, vaginal thrush gone wild, and a moldy penis that infected my nightmares for a month." In 1994, he adds, some teen-agers in Wisconsin had to be hospitalized after snorting puffball spores in the hope of hallucinating. The spores promptly lodged in their lungs.

Of the hundred thousand fungal species identified so far, a mere fraction are edible, and only a few dozen species are sold commercially. (Many more, with names like corpse finder, prefer to feed on us.) Of the edible fungi, a small handful—truffles, chanterelles, porcini, matsutake—are among the most desirable and least predictable foods on earth. Their growth may depend not just on certain trees but on trees of a certain age; not just on good weather but on a series of climatic triggers—a hot summer, say, followed by a wet fall, followed by a month of dry nights above freezing but below forty-two degrees. And still they may not grow. "Nobody really knows any of this stuff," one mycologist told me. "It's completely mysterious."

To find such mushrooms in the woods can seem a sort of miracle—the striking of a great chord, as Ian Frazier once put it—and in some areas the experience grows rarer every year. In the mid-nineteenth century, the French harvested about fifteen hundred tons of truffles annually. By the nineteen-twenties, they were finding a fifth that much; last year they harvested about thirty tons. In the Netherlands, the fungal ecologist Eef Arnolds found thirty-seven species per square kilometre in the nineteen-seventies; twenty years later, he found only twelve in the same area. The decline has been blamed on pollution, deforestation, global warm-

JIMMY AND JANE PLAY DOCTOR



ing, and other environmental changes. But mushrooms are also creatures of disturbance. Nothing encourages morels like a good forest fire, and matsutake depend on pines—often the first trees to come up after a forest burns—and a well-cleared understory. Korea, where forests were clear-cut in the nineteen-fifties, is now the world's largest exporter of matsutake. Japan, where forests have been largely untouched since the Second World War, has lost ninety per cent of its crop.

The situation has been something of a torment to the Japanese. As their harvests have dwindled, they've tried cultivating the mushrooms, with little success. Matsutake pickers, meanwhile, have spread across the globe like spores. They've found patches in China, Canada, Morocco, Sweden, Mexico, Tibet, and Russia. In the Pacific Northwest, Japanese families have collected matsutake for close to a century, but local pickers began to sell them only in the early nineteen-seventies. They kept their patches secret for more than a decade, and picked up to a hundred pounds of mushrooms in a day. Then word got out.

"It basically blew up on September 15, 1989," John Getz, a veteran picker from Florence, Oregon, told me. "One harvester spilled the beans." Getz had heard that the man owed some mushroom buyers a thirty-thousand-dollar gambling debt, so he gave them the information in order to settle up. One of the buyers drove down the next day and began to follow the pickers around. Then he gave their license-plate numbers and a map to some Asian pickers who were gathering morels for him in the area. "That was the last day that I was picking with the deer and the elk," Getz said. "By the next day, they were coming in by the thousands. It was just mind-boggling. You could have taken a seismic reading."

Loch has come back to the Cascades every fall since 1994. Like most of the pickers, he now stays in a private camp in Chemult, a town of a hundred and twenty not far from his first mushroom patch. Chemult has three hotels, three cafés, three gas stations, and a pair of convenience stores strung along a two-lane highway that cuts through the

national forest. "You turn on the television and you see Britney Spears and these phones that can give you your heart rate, and I don't even have a concept of that world," Don Oldham, whose wife owns the Featherbed Inn, told me. "It's not like a land of opportunity here. It's more like escapism. It's like, 'We're done.'"

The mushroom camp sits well back from the road, across from the Featherbed. Its tents, tarps, trucks, and R.V.s are scattered in the woods behind a run-down motel, now used as apartments. The camp is owned by a stout, red-faced man named Dana Van Pelt, and managed by his grizzled, rheumy-eyed lieutenant, known as Angry Bob. Van Pelt charges a seasonal rate of seventy-five dollars for campsites and ninety dollars for rooms, and also owns the pumice mine down the road. The pumice filters the town's water to a startling clarity, lending sweetness to the noodle soup that's sold in the camp's three restaurants. The pickers flavor it with lemongrass, Thai basil, and other herbs that they bring from home in large coolers.

When I first arrived, a local man who was missing his two front teeth was delivering crates of ducks, geese, chickens, and small hairy pigs. The pigs were supposed to be butchered that night for a barbecue, but one of them got loose. It scampered down a dirt path that wound through camp, while a boy chased it with a rope. When a squeal erupted behind one of the tents, Van Pelt nodded. "Sounds like they caught him."

The camp is roughly divided into ethnic groups—Hmong, Mien, Cambodian, Laotian, Mexican, and Caucasian—who maintain an uneasy peace, threaded with resentment. The pickers, who are mostly Asian, mistrust the buyers, who are often white. The buyers mistrust the forest rangers, the rangers the pickers, the Asians the Hispanics, and the whites the Asians. "The one outfit you will not find here is Viet," a bilious local veteran named Roger told me. "Everybody hates them sons of bitches."

In good years, when the mushrooms are plentiful and the prices high, the

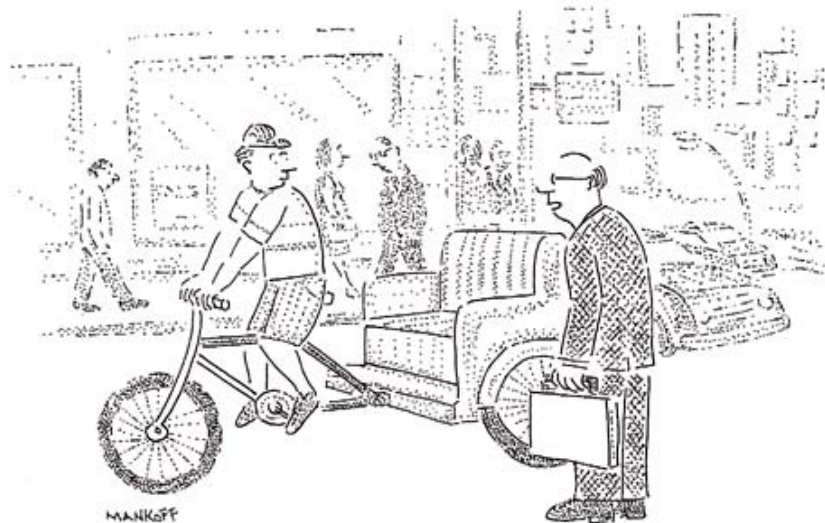
camp can grow to a thousand or more. "There have literally been fortunes made," Van Pelt said. "Two or three of the guys have houses in the high six figures. It gets pretty wild. You get the drugs, the prostitution, the robbing at gunpoint, the gangbanging crap." While I was in Chemult, a Laotian woman was on trial for stabbing her husband to death with a kitchen knife and attempting to kill his second wife, whom he'd married in the camp. Over all, though, it was a poor season for mushrooms and therefore a peaceful one for pickers.



One morning, shortly after dawn, I found Loch sitting by his fire on the outskirts of camp, stiff and cranky with cold. His wife, Kanika, a moon-faced twenty-nine-year-old with brown hair in a ponytail, was steaming some rice for breakfast. Beside her, a pair of scruffy young Cambodians from the East Coast, both called T.C., were eating barbecued pork. The camp's electricity had shorted out during the night, leaving Loch, Kanika, and one T.C. freezing in Loch's battered R.V. The second T.C. had slept in his car and looked even grumpier. Other pickers kept propane stoves going all night, but Loch remembered four Hmong pickers who had died of carbon-monoxide poisoning that way. To keep warm, he and Kanika drank tea made from some giant conk mushrooms that they'd collected. It was good for ulcers, he said.

In the twelve years since Loch had arrived, he had gone from outcast to camp spokesman. The other pickers called him Hundred Things Kouy, because his English was so good, and his hands so adept, that he was continually filling out their paperwork or fixing their cars. For the past two years, Loch had worked as a "mushroom monitor" for the Alliance of Forest Workers and Harvesters, a nonprofit group that mediates between the pickers and the Forest Service.

When the rush began, the Forest Service was worried that overharvesting might destroy the matsutake patches, so it established a picking season and raised the price of permits. Some pickers agreed with the regulations, but many



"How much if I pedal?"

thought the government was trying to drive them off, and Loch's dual role raised suspicions. Even before he became a monitor, he had been shot at by a mushroom poacher who thought Loch had turned him in. (The bullet missed, though it was fired from less than six feet away.)

Loch was having enough trouble finding matsutake already. Unlike morels, they didn't wear crinkled little hats to advertise their location. To get them before the animals did, you had to detect them belowground. "We walk nine, ten miles some days," Loch told me, that morning. "Up and down, up and down." The year before, an anthropology student from California had asked to go picking with him. "Every day, when he came by the buying station, he heard everything about fun," Loch said. "Pick over there—fun! Pick over there—fun!" But when he came with us there is no fun. No food, no nothing. The only break time is snack time. We walk all day, and he said, 'No! Stop! I can't go on no more!'"

Loch gave me a skeptical look, like the one that the pickers in Stockton must have given him when they saw his prosthesis. Then he glanced at the two T.C.s, who muttered something in Cambodian. "They are afraid you are going to slow them down," he said. "They are afraid that you will get lost." I told him that I'd stay close by. "Can

you walk downhill a long time?" Yes. "And uphill and down again?" Yes. "I will think about it."

I was a little surprised that Loch would even consider taking me along. Mushroom pickers are notoriously secretive, especially on public land. (Nothing encourages self-interest like a good freely given.) To keep the matsutake to themselves, some drag trees across access roads, or steal "No Picking" signs and post them beside their patches. Others poach mushrooms from the national park, where picking is forbidden, or harvest their patches at night by lantern light to get a jump on the new crop. A patch of mycelia will bear fruit throughout the season, and some mushrooms can grow an inch a day.

John Getz, the veteran picker from Florence, doesn't even bother going to the Cascades anymore. "The saturation level is just beyond comprehension," he says. Instead, he sticks to the coastal forests near his house, but they're getting crowded, too. Getz lays floors for a living, but he takes off three to six months every year to pick mushrooms. He harvests the same patch every twenty-four to thirty-six hours, being careful not to leave footprints. "Some hunt mushrooms," he says. "Others hunt pickers."

When Getz looks for matsutake, he bends his bony frame just above the ground and lets his long gray hair hang

down, like the child-catcher in "Chitty Chitty Bang Bang." He scuttles from tree to tree, scanning for patterns in the pine needles, then drops to the ground and jams two fingers in the soil. Out pops a plump matsutake. It's less like mushroom hunting than like sleight of hand. "You get so that you can see the tension in the ground," he told me. "Just that pressure. And when it's raining you can see these little light-colored rings. It's really trippy. Your eyes tune in, your brain is keeping inventory, and you just get a feeling. Something taps you on the shoulder and tells you to go pick."

Asian pickers were, if anything, even more superstitious. Some wore only certain colors in the forest, or, if any branches made too much noise, they asked the tree's permission to continue picking. (Loch knew one man who gave up on mushrooms altogether one gusty day, after some trees dropped pinecones on his head.) Still, few pickers had Getz's instincts. He found up to seventy-five pounds of matsutake a day; Loch and Kanika together averaged less than twenty-five. In six weeks of picking, they might make ten thousand dollars, but Kanika was often worn out. "My first year, I cry," she said as Loch's truck lurched up a logging road. "It hurt all over my body. I tell Kouy and he hold me. He tell me, 'Tired?' 'Yes!' 'Want money?' 'Yes!' And we start to pick again."

Loch parked the truck in a stand of red-barked sugar pines and Shasta firs. Then he and Kanika each grabbed a walking stick and a plastic bucket and headed in opposite directions. (The two T.C.s had gone to another forest to hunt by themselves.) On level ground, Loch's stride was so smooth that I had trouble keeping up with him. But on the steepest climbs it took on a torquing, herky-jerky quality that betrayed his prosthesis. Known as a Flex-Foot, this was a ten-pound mechanism of titanium, fibreglass, and carbon graphite, strapped to his left knee. "The joint and the ball bearings are kind of worn out," he said, pushing off with his stick.

Signs of other pickers were everywhere: toadstools kicked to pieces, pine duff stripped clear by a rake. "It's no good," Loch said. The matsutake could handle heavy harvesting, but only if the mycelia were left intact. When torn up

or exposed, they dried out and died. "It's like you disconnect all your veins from your heart," he said. He scattered a few pine needles over the bare soil, then stepped over to investigate a bump. "Oh! Matsutake!" he said, his voice rising. When he looked closer, though, he found an odd brown fungus, curled in upon itself like a rodent's brain. He thought it was a false morel. When cooked, it could release a toxic vapor of hydrazine, also found in rocket fuel. Small amounts were harmless—false morels have long been eaten in Scandinavia—but even the tiniest overdose could cause severe liver and kidney damage. They were sometimes called "the Finnish fugu."

Death by mushroom is not uncommon in Europe: a few dozen pickers succumb almost every year. Fungi can contain natural poisons or absorb the poisons around them. In northern Scandinavia, in the nineteen-sixties, Laplanders began to show high levels of radioactivity in their tissues. It was later found that they had eaten reindeer, which had eaten fungi, which had absorbed heavy metals from nuclear tests. Some Europeans worry that the wild mushrooms now exported from Eastern Bloc countries contain similar toxins. "I won't eat them," a chanterelle lover from Germany told me in Chemult. "They're too close to Chernobyl."

The great majority of mushroom fatalities in North America are caused by species in the Amanita family, the most notorious of which are death caps and destroying angels. These are fetching creatures, despite their names, with slender stems and prim white skirts. They're said to be delectable, yet a single cap of either mushroom can kill an adult. The danger is compounded by its delayed effect: the victim may feel fine for up to a day, then begin to vomit and suffer diarrhea and stomach cramps, before appearing to recover—by which point his liver is beyond repair. Loch found a few death caps while I was with him, but they never seemed to faze him. He'd seen deadlier things in the Cambodian woods.

Loch grew up in Battambang Province, near the Thai border, the fifth of seven children, raised in a two-room hut. His father, an officer in the Cambodian Army, was fatally wounded in 1970, when Loch was seven. Afterward,

his mother sold vegetables and cigarettes to support the family, but Loch was soon foraging for himself in the woods. His teen-age years coincided with the rise of the Khmer Rouge. In 1977, when he was fifteen, Loch was thrown into a penitentiary for protesting a drop in his work team's rations. For the first four months, he was tortured every other day—his vertebrae are still barbed with bone spurs from the beatings he took. He survived only because he befriended one of the jailers, who taught him a Communist lullaby. The authorities enjoyed his singing, he says. "Everybody else that go in there all die."

Less than a year after Loch was released, the Vietnamese invaded Cambodia. As the Khmer Rouge retreated, they dragged the rest of the population with them to serve as a human shield. Of the eight million Cambodians alive in 1975, fewer than six million survived four years later—it was one of the most lethal episodes in human history. Loch remembers sharing half a pound of rice with three hundred others, drinking water from wells fouled with corpses, and seeing babies abandoned on their dead mothers' breasts. When the Khmer reached the Thai border, he escaped into the rain forest and joined a band of guerrilla fighters.

"At first, we sleep on the ground like animals," he told me. "No huts, no nothing. When rain come, we get under the tarp, just one tarp for fifty freedom fighters. Later on, we chop the wood and burn it into coal and sell it to the Thai people." After three years, Loch was leading a platoon of thirty-six in raids against the Vietnamese. ("I will side with my brother against my cousin," he said. "But I will side with my cousin against a stranger.") On the morning of April 12, 1982, he was patrolling a forest mined by the Khmer Rouge when he stepped on a firing pin. The explosion disintegrated the heel and all but the smallest toe of his left foot.

A little more than a year later—after Thai soldiers had found him and carried him to a field hospital; after his left leg had been amputated below the knee; after he had joined his mother and siblings at a refugee camp and was granted asylum in the United States—Loch arrived in Stockton and began a new life. He enrolled in a three-year trade school and took a job as a mechanic for Nissan. He married a Cambodian, had three children, and earned a second degree, in engineering. He lost his mother to uterine cancer, his wife to an ugly divorce, and his job to the depression that followed, and eventually he found



"Sorry I took so long. I went to the bathroom, tried climbing out the window, and got stuck."

himself in the Oregon woods with a thousand other wayward migrants.

On our first day together in the woods, I asked Kanika how she and Loch came to be married. She told me that their mothers were sisters, and Loch had sponsored her immigration, in 2001. "I feel sorry for him. His wife cheat on him, leave him three boys, and the little boy has no clothes. Kouy say, 'You want to marry with me?' And I say, 'Yes, because I want to help you. I want to cook for you.'" Three years later, she gave birth to a girl, whom they named Janette—Cambodian for "one slice." They'd brought her to the Cascades the previous fall, leaving the older children with Loch's brother in Stockton, but the camping was hard on her. "She was so cold," Loch said. "When I see her nose is running, I say, 'Oh, God, what am I doing here with my daughter?'"

As the afternoon passed, the forest filled with a dusty light, hatched by the shadows of pines. Kanika called out to Loch from time to time in a high, forlorn voice, like a hoot owl, letting him know where she was. (She called him Bang, which means "older brother"; he called her Aun, which means "little sister.") She found a clutch of immature matsutake beneath a blanket of duff—"Oh, baby ones!"—and tucked them carefully back in. She scolded the deer for eating her mushrooms and praised them for avoiding the poison ones. Finally, she called out to Loch again, louder this time: she wanted to go home. A moment later, his voice drifted back to us through the trees: Wait.

I sat down on the log beside her—my feet hurt—and looked around. We'd wandered into a small glade open to the sky. A circle of shaggy sugar pines stood around it, like brooding hens, and gathered in the last of the day's warmth. I wish I could say it was then that a voice rang in my head, telling me where to pick. But it was Kanika squealing next to me. She had grabbed my arm and was pointing at the little mounds all around us. "Matsutake!" she said. Then she fell to her knees and began to dig.

A wild mushroom, once picked, drops down the rabbit hole of the commodities market and may wind up, two days later, five thousand miles away—a forager's food turned exotic

delicacy. "Urgency is the key," a buyer named Terry Culp told me. "Mushrooms are ninety per cent water, and as soon as you buy them they start to shrink. By the time you get to the warehouse, you could lose ten thousand dollars." Terry and his twin brother, Torry—they call their company Territory Mushrooms—are forty-eight and have been in the business since 1980. They spend half the year on the road, from the Yukon to Oaxaca, buying twenty-six varieties of mushrooms from migrant pickers. "We were into mushrooms before mushrooms were cool," Terry said.

In the Cascades, the Culpes operate out of a row of prefab storage bays along the highway, behind some tents run by other buyers. Blond and blue-eyed, with throaty tenors and inflated biceps (they bring along barbells and a Bowflex machine wherever they travel), they're easy to spot in a crowd of dark, slender Asians. Torry works the pickers in the parking lot, leaning into car windows to negotiate prices, while Terry buys mushrooms inside. Matsutake are graded from one to six—one for the young and pristine, whose hoods have yet to open; six for the worm-eaten and overmature. On the nights I watched them, the Culpes were paying as much as forty dollars a pound for ones and a dollar a pound for sixes. Terry would weigh them, sort them into bins, and shout out the values to his girlfriend Gwen, at the register. In the corner, their dog, Kasha—an enormous Akita-king shepherd mix that they liked to call "the international mushroom hound"—stood guard over the inventory.

By ten o'clock, a truck was idling outside, ready to load the quarter ton of mushrooms that the Culpes had bought. The driver, having made the ten-hour trip from Vancouver that day, would head north again and arrive in Canada the next morning. The matsutake would be wiped clean and packed in Styrofoam boxes, chilled with gel

packs, and sent overnight to Tokyo. There most would be sold wholesale, at the Tsukiji market, and arrive at last in grocers' window displays, nestled in baskets with pine boughs and orange blossoms.

Terry estimated that his sales had tripled in the United States in the past ten years, but that pickers were finding only half as many mushrooms. (He blamed global warming.) In a good season, he might gross two hundred thousand dollars and clear sixty thousand after expenses; in a bad season, he said, "we're sleeping in Grandma's bed." His income was both hostage to the unpredictability of his produce and dependent on it: if the same mushrooms could be farmed, he'd be out of a job.

Mycologists have had mixed success with domestication. The French have known how to inoculate oak and hazelnut seedlings with truffle spores since the nineteen-seventies. They now have some forty thousand acres of truffle plantations. Morels have been raised on bark and leaf compost since the nineteen-eighties, and are being grown industrially in Michigan. But porcini have remained resolutely wild, as have chanterelles. In 1996, a mycologist named Eric Danell coaxed some chanterelles into growing on Scotch-pine seedlings. He has since returned to his native Sweden, where he has established twenty-four chanterelle plantations; though a number of them have mycelia, none have yet borne fruit. "We have suffered rabbit attacks and insect attacks," Danell told me. "Or maybe I have created plantations that don't mimic nature too well."

Matsutake have been even less cooperative. Despite a century of exhaustive research, the Japanese have yet to establish a plantation. They've sequenced most of the mushroom's genome, replanted cuttings from host trees, inoculated seedlings with cultures, and experimented with fertilizers. Yet the mycelia never survive transplant. "It's a much more difficult challenge than truffles," Charles Lefevre, a mycologist who did his Ph.D. work on matsutake at Oregon State, told me. "Matsutake always live in the worst soils—sand and pumice—so they demand much more from their hosts." A truffle can grow near a five-year-old tree, but the matsutake prefers a host that is at



DRIVING HOME

Minister of our coming doom, preaching
On the car radio, how right
Your Hell and damnation sound to me
As I travel these small, bleak roads
Thinking of the mailman's son
The Army sent back in a sealed coffin.

His house is around the next turn.
A forlorn mutt sits in the yard
Waiting for someone to come home.
I can see the TV is on in the living room,
Canned laughter in the empty house
Like the sound of beer cans tied to a hearse.

—Charles Simic

least forty years old. "There is just something that the tree provides that we don't," Lefevre said.

Early one evening in Chemult, Lefevre joined me for a bowl of soup at the mushroom camp. He had driven up from Eugene that morning, and we'd spent the day hiking around his old study sites. Short and burly, with forked eyebrows and chestnut curls, Lefevre looked a bit like a satyr and had some of the same earthy intensity. He grew up in Oregon, he said, the youngest of eight children, and was a mushroom hunter long before he was a mycologist. In his mid-twenties, after getting a degree in biology, he spent four years in a biotech lab, working with snake venom and cracking open sheep skulls to extract proteins from their brains. Then, one day, while he was out in the woods, he came upon a sign that said "Matsutake Study Area." "It occurred to me that I was spending all my free time mushroom hunting," he said. "Why not do this for a living?"

Lefevre's story was interrupted by the arrival of our soup. It was a clear brown broth, fragrant with coriander, and filled with cabbage, noodles, pork balls, and Asian herbs. But there were no matsutake in it. They were too valuable to put in a three-dollar dish, I supposed. The few matsutake that I'd had in Chemult—mostly grade fives, grilled over an open fire—had been sweet and firm, with a bright, piney aroma and a rich, meaty flavor. No hint of Red Hots or smelly socks.

"When done well, they're just sublime," Lefevre said. But most Americans don't know how to prepare them. We tend to sauté mushrooms in butter or oil to bring out their flavor, he explained. "Truffles, chanterelles, porcini—their aroma is fat-soluble. But the matsutake's aroma is water-soluble—it will not infuse fat. They're much better in soups or in rice, using a Japanese technique."

When Lefevre was writing his thesis at Oregon State, he hired a Japanese student to translate some scientific papers for him. They agreed that for every paper he completed, the student would get one matsutake from Lefevre's site in the Cascades. "He was sure that he was getting the better part of the deal," Lefevre told me. "He said that his family would scrape together enough money every Christmas just to buy one matsutake." At one point, Lefevre said, he admitted that he wasn't wild about the mushrooms—they were kind of chewy, he said—and the student rolled his eyes. "He said he'd never had a piece large enough to chew."

Lefevre gave up the idea of growing matsutake while he was still in graduate school—it was just too hard—and shifted his sights to truffles. Now forty-one, he helps run the annual Oregon Truffle Festival, in Eugene, and owns New World Truffieres, a company that sells oak and hazelnut seedlings that he inoculates with black and white truffle spores. As many as fifty thousand truffle trees are planted in the United States every year, Lefevre estimates, and the

market is still in its infancy. "The pioneers will do it now—the risktakers, the adventurers," he said. "I feel like I'm riding a wave. It's building and building. It's really kind of euphoric."

He was quiet for a moment, then he gave me a small, skewed smile. He felt a little ambivalent about being back in the Cascades. He used to come here as a mushroom picker; now he spent his time trying to make pickers obsolete. The ones in Chemult were safe for now: the matsutake remained stubbornly untamed. But a single new strain, adapted or engineered to grow near younger trees, might make plantations possible. "It's one of the holy grails of the mushroom world," Lefevre said. "But I kind of don't want to see it domesticated. I don't want to see it cultivated."

People have been fostering truffles for a very long time, and there have been crude methods for farming black truffles for two centuries. But the matsutake has always been collected in the wild. In Japan it's a cherished seasonal delicacy, like cranberry sauce. "To suddenly take that out of its cultural context and make it available year round—to have it become commonplace—that would be a sad thing," Lefevre said. "And it would have a massive economic impact on rural people all over the world."

After dinner, Lefevre and I walked over to the camp's largest noodle tent, which also served as its casino, karaoke bar, and town hall. Some trays of rice and stir-fry had been set out on wooden planks, and the stereo was on. I could see Kanika and Loch whispering in a corner, their heads bent together, and a crew of young Laotians in army fatigues, bragging about their day's haul. The owner of the Featherbed Inn was talking to an anthropologist from Santa Cruz, and Dana Van Pelt was having a beer with Angry Bob. "There are a thousand reasons that people are out here," Lefevre said. "But mushroom pickers are all misfits in one way or another." He laughed, and I could tell that he still counted himself among them. "That's one of the wonderful things about this industry," he said. "It gives the misfits something to do." ♦

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A slide show of the matsutake harvest in Oregon, photographed by Yola Monakhov.