

Prologue: Amazon Basin, 1940 Somewhere in South America

Overhead a monkey howled, piercing the dull snapping sounds of humans moving through forest. There were six of them in all: five men and a shirtless barefoot boy of nine who believed himself to be leading the way.

Raising his machete, the boy chopped at a vine, sending the stem arcing upward. Before the imaginary serpent could swing back at him, the boy charged ahead, pausing under a wall of tangled flora. This time he hacked repeatedly. For his effort, a single leaf floated down to the jungle floor, and Manuel heard a familiar laugh: Father had been watching him; soon his uncle joined in the joke.

“Mach schnell!” one of the foreigners cursed. *“Aprésurate!”*

The laughter stopped, replaced by the hissing-crackling sounds of steel slicing through brush, of Father and Uncle Choco hastening to clear a way for the three white men.

These strangers in their pale clothing were impatient, barking orders at Manuel’s father and uncle. But Manuel liked one of them—the quiet, bespectacled one who brought food and medicine for his people. Manuel would still be doing chores back at the village if not for this man.

The boy lowered his head and scanned the forest. Still no clear path ahead, but no matter: he would make one.

And find another *el monstruo* for the doctor.

Crouching, the boy turned sideways, closing his eyes as he squeezed into the patch. Branches clawed at his face and chest, but after three steps, nine-year-old Manuel Navarez, youngest of the Tacana guides, was through, looking back.

His satisfaction quickly turned to dismay as he saw the adults—a procession of brown backs and khaki shirts—vanish into the lower canopy . . . moving away from him.

Frustrated, the boy kicked at the litter floor, sending beetles scurrying from a gouge in the soft compost. Jaw set firmly he turned his back on them: the beetles, his father and the others. He raised the machete, and was about to cut into the thicket when he heard his father’s voice, now a bit farther away: “Manuel, stay where I can see you.” The last few words trailed off as they echoed off trees.

Manuel waved at the mosquitoes, more as a gesture of disobedience to his father, and continued on.

The ground was warm beneath his bare feet, the surrounding air humid and thick, and the swarming mosquitoes merciless. Yet unlike the complaining white men, Manuel did not slow to swat at the insects or wipe sweat from his eyes.

He focused on the ground, his nostrils searching for a scent. He did not know this part of the jungle. But he did know what the generous doctor sought, and the slightest distraction could cause even the most experienced guides to walk right past the nasty little prizes as they had done two days ago.

Manuel swung and severed another branch, then followed with a backhand and cut deep into the hard twine dangling from above. *If it had not been for him, they would not have noticed the thing snaking out of the monkey.*

He gave the twisted vines another thwack, then another. Finally, they fell. His arms were so tired they stung, but there was light ahead. *They* should be following *him*.

The boy moved still farther from the others.

“Manuel, stop!”

Manuel glanced back. Through a gap in the foliage, he could see Father gesturing to him; next to Father, one of the white men stood itchy and restless.

They might take another path without him, leaving him alone to find his way—or worse yet, Father might come after him and beat him in front of the others.

The boy was leaning to go back when the scent of rotting flesh entered his nostrils. Excited, he ducked behind the buttress of a mahogany tree—out of his father’s sight—and sniffed the air.

Through the vegetation Manuel saw a small clearing, in the center of which sat a large puddle. Beyond that lay mounds of mud, then the continuance of the jungle.

He could take a look . . . a quick one . . . and still catch up with them.

Manuel ran and leapt over the watering hole.

He turned toward the strange piles. They were out in the open and baking in the sun, a few to each side of him, each about knee-high.

He sniffed, turning his head. He took a step back from the water and listened.

It was quiet here. No bird sounds, and the howls of the monkey had long stopped. He turned and waited. Time passed. He could not see or hear the men. Not a rustle.

Manuel tested his nose again. Lower. He dropped to his knees. *There*. . . . Something large was buried in the embankment surrounding the small pool.

He crawled forward, his eyes searching the ground as he pulled himself closer to the rotten smell. In a patch of sunlight, something hairy was roasting in the mud. He sniffed again.

His eyes caught movement in the brush to his left. A few feet above the ground a branch swayed slightly, though there was no breeze here in the jungle. Alert for a jaguar, Manuel froze and watched.

An enormous frond was folded in half; something inside was giving it additional weight.

Manuel crept toward the shaking stalk, his eyes never leaving it. The large leaf had several drops of water clinging to its top half. Its bottom part was pulled up and joined to the top. Inside was a lump that moved.

He pushed himself to his feet. Where the leaf was sealed shut a slender limb popped out—a segmented leg that probed the edges of its shelter.

Manuel tightened his grip on the machete.

A black, triangular head appeared, its oval eyes immediately finding him.

El monstruo.

He would cut the stalk down, step on the leaf and call for his father. . . .

He moved closer.

There was a cracking noise, like the sound of something hatching. The creature was pulling more of its body out of the envelope, testing its wings. Manuel gasped at the size of it, big as a man’s foot, but slender, especially where its chest and bottom part were joined. Too much for him, but the others had nets. He turned away.

“*Padre!*” he shouted into the forest, listening for the others, preparing to call out again.

Instead Manuel heard an angry vibrating sound. He wheeled around.

The fidgeting limbs and antennae had stopped; the creature beat its membrane wings. Instinctively the boy retreated.

It sprang. Like a thick spear it was in his face, swinging its abdomen forward. He saw the blur of its body, just as its front legs hooked into his scalp. Its hindquarters smacked his chin, legs pushing at his mouth. Before he could pry it off, something needlelike pierced his throat, impaling his larynx, causing him to grunt.

The machete fell to the ground.

Staggering, Manuel tried to scream. Couldn't. It had stung him in the throat. Unable to breathe, he tried to raise his arms, tried to take a step.

Manuel Navarez fell, the back of his head thudding in the mud, the living mask still attached.

The boy gagged once—involuntarily—as the long needle was then forced down his throat.

Night.

Inside a thatched hut along the northern shore of Rio Tuichi, Dr. Max Schlemmer cracked his knuckles and smiled wryly, doing his best to ignore the growing commotion outside and monitor his unconscious patient.

On a cot a few feet away, the boy lay buried beneath a wool blanket. At intervals, the light from a flickering kerosene lamp danced up the small supine body, casting the boy's uncovered face in a sickly orange glow before receding again.

From the terrace, the young patient's father was pushing for answers. When would the boy come to? What type of disease did the boy have? Schlemmer threw up his hands as if to say, I do not know. Then, in poorly structured Spanish, the Nazi ordered the man to go home. The boy's life depended on it.

After several more unanswered questions, the distressed Tacana did go away, and Schlemmer breathed a sigh of relief—though he'd not been all that concerned. His men were armed, and Otto the Giant was standing watch outside the door. If anyone could block the door from prying eyes, it was Otto.

The doctor's attention returned to his patient. He waited for another glimpse of the boy's throat. When it came, he took a mental picture that pleased him long after the light had retreated: of a small tumor bulging from the boy's Adam's apple.

Part One: Invasive Species

The Bug Man

The sun over northern Santa Barbara County shone warm and bright, accentuating the colors of a cloudless sky, and a wide valley that stretched six hundred and fifty acres from one mountainous horizon to the next.

From the winery's terrace Tom Goodman shaded his eyes and looked through a gap in the patio's hedges. A grassy slope descended several hundred feet to a large tract of soil where columns of grapefruit trees grew. Beyond the grove Goodman spotted rows of a far more significant crop: not grapefruit, but the heart of Chiesa Vineyard—its grapes.

Dozens of brown-skinned Latin American men were picking the vines, filling their buckets with clusters and rushing off like ants, only to be replaced by fellow laborers returning from drop-off.

Goodman found the nearest path down. A few minutes later he was walking through the orchard. Recently irrigated, the soil was muddy. He could see droplets clinging to the leaves, tiny crystals glistening in the sunlight.

So far the valley looked healthy, or, at least, the surrounding border of grapefruit trees did.

Not a single dead or brown leaf.

A warm breeze carried a pleasant smell—sweet and bitter.

Goodman walked over to one of the trees and grabbed a branch. Up and down he searched the bark then checked the leaves for anything *not* green. He shook the branch and waited.

Still no sign of the tiny pest.

He cut through another grove, and several minutes later he noticed the vines—four-foot columns of bark-covered, large-leafed plants, each twisting around a wooden stake. In front stood a dark-haired man in a red polo shirt and slacks.

The winery's owner, Eddie Chiesa, wasn't much taller than the vines.

Goodman waved.

Chiesa's hands remained on his hips.

As Goodman approached, Chiesa glanced at the small kit fastened to Goodman's belt. "Please hurry. They're eating my vineyard."

Goodman shook his head and pointed over Chiesa's shoulder.

"Show me first."

Chiesa led him deeper into the vineyard, the short man's swift gait forcing Goodman to take quick long strides just to keep up.

Goodman understood Chiesa's urgency. Sometime recently a tiny hopping insect known as a sharpshooter had arrived, multiplying quickly, and now hundreds of the pests were devouring the core of this year's crop.

"When did you first discover them?" Goodman shouted ahead.

Slowing, Chiesa turned. "One of my men saw one. He knew what it was and reported it to me." Chiesa kept walking. "This was two days ago. Like I told you on the phone, we counted hundreds of them."

Goodman motioned to a plant. "Are these the vines?"

The skin on Chiesa's bronze face wrinkled into a tense smile. "Are you kidding me? This is just the recent stuff. The vines inside are toast. . . . I mean there's nothing green on them. Come on."

Goodman followed another hundred yards and then stopped. On a partially chewed leaf, he saw it. A light-brown blemish: The double-whammy that the sharpshooter delivered to the grape plant. Pierce's disease: a bacterial blight was spreading across Chiesa's vineyard.

"Over here," the winegrower called.

Goodman turned and looked.

Chiesa was crouched under an infected vine where all but a few of the leaves were scorched. "Look at them all here! Little bastards—I want you to put the traps here."

Goodman cleared his throat. As he moved toward Chiesa, he noticed a few of the sharpshooters—specks hopping from leaf to leaf. "Uh, Mr. Chiesa, there aren't any traps."

"Huh?" Rising, Chiesa turned. "What are those things on your belt then?"

"Vials." Goodman unsnapped the holster-top on his belt. With thumb and forefinger, he plucked out one of the tubes and held it near the winegrower's face.

Chiesa released a long frustrated breath and moved closer, his dark eyes peering into the vial. Inside, a tiny insect hovered, its speedy wings a blur. "What's that? Some kind of fly?"

Goodman moved the vial closer. The insect was more slender than most flies, its head more ant-like, and its exaggerated antennae nearly the length of its body. Its three-part body was the color of honey.

"Hey, he's yellow. Now I see it, it's . . . it's a wasp."

The wasp bounced forward and touched the glass.

"That's right, Mr. Chiesa. Meet *Gonatocerus triguttatus*. From now on, she's going to be your

best friend.” Goodman returned the vial to his belt.

“OK,” Chiesa said. “Start letting them out right here. It’s where most of the action is.”

Goodman shook his head. “I’m afraid that’s not the best plan, Mr. Chiesa. You see we want to seal our enemy in. I plan to release the wasps somewhere out in the grapefruit grove and let them get acquainted with their new home. Then, very soon, possibly within a day, they’ll find and attack the largest sharpshooter communities.”

Confused, Chiesa flapped his wrists. “But won’t they just fly away? How do we know they’ll find the bugs? And how are they going to eat them anyway? They’re tiny in comparison.”

Goodman started out of the vineyard, glancing back. “They don’t eat the sharpshooter right away, Mr. Chiesa. They lay their eggs on the sharpshooter’s back. Then, when the eggs hatch, the larvae eat and kill the host.”

“But how do they know where the sharpshooters are?”

Goodman stopped. One thing he liked about Chiesa was the man’s childlike curiosity. “My personal theory is that they use smell. Not like in smelling the sharpshooter directly, but rather smelling a chemical cue the grape leaves give off when the sharpshooter bites into them.”

Chiesa squinted. “No kidding?”

Goodman put a hand up. “That’s just my theory. Recent studies have shown that other species of parasitic wasp come to the rescue of plants that are under attack. The wild tobacco plant, for example, gives off a signal to the *Cardiochiles nigriceps* wasp. *Nigriceps* can cut the attacking caterpillar population down by eighty percent.”

Goodman glanced at Chiesa. The winegrower was looking around the vineyard, no longer listening. Goodman chuckled. It wasn’t unusual for him to bore laypersons with his entomological babble. His wife was a perfect example. Carolyn often turned away, focusing on something else when he was *talking bugs*—as she called it.

“Would you look at this fucking place?” Chiesa said.

“Come on, Mr. Chiesa. You want to watch me release the triggies?”

“Trig—? Oh yeah, the wasps. Yeah, sure.”

Goodman led the way out of the vineyard. Catching up, Chiesa said, “Uh, Dr. Goodman, these wasps of yours—” He paused. “They won’t sting my men will they? I mean, I could always start spraying again.”

“Don’t spray,” Goodman replied, almost too sharply as he spun around. He relaxed. “You’ll kill the wasps, too . . . and they don’t sting. They just lay their eggs on the bad guys. Besides, you told me you wanted to stay organic.”

Chiesa shrugged. A noisy tractor carrying clusters of grapes motored by. Both men turned to watch it pass.

Goodman said, “Give me some time to do my magic, Mr. Chiesa.”

He paused to watch the grape-filled tractor disappear into the citrus grove. “You’ll be glad you did.”

Glancing at his watch three hours later, Goodman swore and stepped out of his Ford Explorer. It pained him that he still had so much to do and that he’d missed lunch.

During his long drive down the California coast from Chiesa Vineyard in Los Olivos to Riverside, he’d stopped at Pea Soup Anderson’s for a meal but had left empty-bellied and parched—too intimidated by the thick line of patrons ahead of him waiting for a table.

And now his stomach was letting him have it for that lack of patience, and for not stopping someplace else.

He crossed the parking lot, glancing at a poster stuck to the side of the unmanned attendant's booth. The Department of Facilities had placed such printouts all over campus, reminders to Chapman Hall faculty about today's moving deadline: 8 a.m., Friday, June 28th. "*If you need assistance with your move, call us at Ext. 6351 no later than 4 p.m., June 26th.*" Goodman had it memorized.

Now four o'clock on June 28th, the professor lamented his procrastination. Like the many undergraduates he'd lectured to about the importance of planning ahead, Goodman had let his passions distract him from his educational responsibilities.

His stomach growled again, a churning sound that followed him across the empty parking lot. It was a ninety-five-degree afternoon, and anyone working or living on the desert campus had already cleared out for cooler lodgings. Goodman crossed the narrow street without looking and climbed the steps of an ivy-covered building. He glanced up at the black letters above the double doors.

Chapman Hall.

Lots of memories: The way the cracks permeated every room, including his third-floor office. And all the times his specimens had disappeared into those cracks, never to be seen again. All except one. Remembering Centus, Goodman smiled.

Centus had come out one inopportune moment while Carolyn was visiting . . . an awful silence as the four-inch centipede scuttled past her sneaker until she'd screamed and hop-scotched away, causing Goodman to laugh and Centus to retreat back inside the wall.

Shortly after Centus' rare appearance, however, the cracks became no laughing matter when an earthquake registering a 6.0 widened them into gaps and dropped plaster on Goodman and many of the other scientists' heads. So, the university had built the Entomology department its own pair of big, modern seismic-replacement buildings where Goodman would have a new office and use of a state-of-the-art insectary. The Cecil T. Stewart Entomology Building would not crack, Larry Atkins, the science dean, told Goodman and others, and the University of California at Riverside's Entomology facilities would be the envy of the entire nation.

And they were.

Goodman climbed the stairs and pushed through the swinging doors. He moved down the dim and dusty hall and stopped to face a door marked 308. He reached into his pocket. A relic key fit the knob hole and he entered his office.

Boxes filled the room, piled high on the floor and on his desk. A pair of bookshelves towered against the wall, textbooks already emptied and packed, but Goodman would still have to transport everything to the new building. Again he cursed himself for procrastinating; there'd been strong-bodied men from Facilities who'd been available all week to help him.

He'd have a full night of moving ahead of him, on an empty stomach, by himself. Some three dozen boxes in his office, and the two stacks of specimen trays from the old makeshift insectary in the basement. Down three floors and then up three to his new office.

"How in the hell am I going to do this?" Goodman cried aloud, bringing his thumb and forefinger to his temple—until an idea came to him. A delicious idea. He pulled out his cell phone, hit one of the speed-dial keys and waited.

"Pepe's," a voice answered.

"Yeah, hi. I'd like a medium cheese pizza. For delivery. And a Pepsi, too. I'm at—"

A sound from the hall startled him. He turned.

A small blonde woman stood in the doorway, her blue eyes sparkling despite their uncertainty. In her hand was brown paper bag.

"Bad time?" she said.

Carolyn.

“Never mind. Thanks,” Goodman said into the phone and hit End. He chuckled as he crossed the room. He took his wife’s hand and brought it to his lips. “Not at all. What are you doing here? I didn’t see your car.”

“We parked on the other side,” she said. “Larry was looking for you and I figured he’d have you working late so I made you dinner.”

“Larry was looking for me?”

“Yeah, he called for you at home.”

“Hmm. . . .” Still cradling her hand, Goodman kissed her on the cheek. Her hair smelled nice. “Where are the kids?”

“In the back, checking out the new facilities.”

“Oh?”

“Yeah—you know how Shane loves to look for your bugs.”

Goodman nodded and he slid his hands up her arms. Then he turned and waved at all the boxes. “Would you look at all this stuff?”

She followed and gave him a playful kick on the seat of his pants. Goodman turned and she handed him the bag.

“What is it?”

“One of your favorites.”

He reached inside and pulled out a neatly wrapped sandwich. Roast beef with avocado.

“I can’t believe it,” he whispered, tearing through the plastic. “I’m starving and you show up with food.” He leaned in and kissed Carolyn on the lips. “You must be some kind of angel.” He took a big bite out of the sandwich.

“You weren’t supposed to know,” she replied.

Goodman swallowed, then reached into the bag and took out a bottle of water. He removed the top and drank for several moments.

“Can the angel lift bookcases?” he said finally.

Looking over her shoulder, Carolyn assessed the furniture. “Huh, wow, they’re big and bulky.” She turned back and said, “But I can’t let you do it alone, now can I?”

“God, I love you. . . . OK, let’s start with the shelves, I think I can handle the rest by myself.”

He crumpled the empty bag into a ball and stuffed it into one of the boxes, then placed the bottle and sandwich onto his desk. Again, he stared at his wife, shaking his head in disbelief. “You’re an absolute angel.”

“Let’s get to work,” she said, slapping his arm.

They approached the tall bookcases. “I bet you wish you had the strength of one of those ants you’re always talking about,” she said. “Leaf-cutter?”

“Very good.” Goodman reached under the mahogany shelf and tilted it on its side. “I thought my ants had been going in one ear and out the other.”

“Only sometimes,” she said.

They shuffled out of the office, carrying the bookcase. At the stairs, Goodman turned and backed down, taking as much of the weight as he could. They rested at the second-floor landing.

“Hey, when we’re done with this one, let’s check on the kids, OK?”

Swallowing, she nodded, and they continued down the steps.

Eight-year-old Jessica Goodman scanned the second-story terrace of an enormous brick building. “Dad, what are those?” She pointed to one in a series of see-through structures that resembled greenhouses.

“Those are aerated research areas, Jess,” Goodman said. “That’s where we grow plants and study what pests do to those plants, and how we can stop those pests without using insecticides.”

“Daddy, what are those?” said three-year-old Shane, echoing his sister. He also pointed in the direction of the greenhouse-like structures.

“Here, let me show you.” Goodman took Jess and Shane by the hand and led them up the handicap ramp. He pulled them left toward a column of terrariums glinting in the sunlight. They stopped next to the first one. Behind the Plexiglas, the terrace concrete gave way to eight inches of reddish-brown soil and scatters of leafy plants. They looked inside.

“These are tobacco plants, kids,” he said. “The people who grow tobacco make money from healthy harvests. If something like the hawkmoth caterpillar comes along and eats all of the plants, these people lose not only their crop but sometimes their farms as well. Here, we create plants that can protect themselves from the caterpillars. We’re also raising wasps that destroy the pests.”

Goodman glanced at Shane—Carolyn had picked him up and the boy was wiping his fingers all over her face. “Mommy, all wet,” he giggled. The entomologist turned to his daughter. “Well, Jess, what do you think of Daddy’s new lab?”

Jess folded her arms and frowned. “I think it’s wrong,” she said.

Goodman stared at her.

Avoiding his eyes, Jess continued. “If tobacco is used for cigarettes and other things that hurt people, then why are you killing the caterpillars? Aren’t the caterpillars saving people’s lives?”

Goodman blinked. *When did she get so smart?*

“Why don’t you grow plants that save people’s lives?” the girl added. “Why tobacco?”

Carolyn came to his rescue. “Because the tobacco industry is paying for this research to be done, and your father is doing the research. He’s doing his job. He’s not killing people, hon.”

“Jess, let me show you our grapevines. You like grapes, right? Daddy had a job earlier today. I’m hoping to save not only the farm and people’s jobs, but food you and I eat.”

Goodman led his family up a flight of concrete steps to the second-story terrace. They all peered in at the micro-vineyard, one of several different small ecosystems on Level Two. Behind the clear casement, the fertile soil seemed to sprout stakes that were overwhelmed by vines and curling leaves.

“Are these grapes that are used to make wine, Dad?”

Goodman closed his eyes. His daughter was being a pain in his neck. A very smart little pain.

“Jess, stop badgering your father,” Carolyn said. She put Shane down and took the boy’s hand. They moved along until Goodman stopped outside a terrarium containing desert plants. Pebbly sand banked up against the foot of the glass, spreading out in miniature dunes and valleys, out of which grew a small forest of Joshua saplings, yucca plants and cholla cacti.

“What’s inside this one, Tom?” Carolyn asked. “I see something flying around.”

“This is a thermostatically controlled desert ecosystem—everything inside is just like what you might find out at Joshua Tree National Park. We keep it cool during the morning and night, and hot during the day. Those things you see flitting around are tarantula hawks, a type of wasp. Know what tarantula hawks eat, Jess?”

Jess rolled her eyes. “Duh.”

“Time’s up.” Goodman preferred to ignore her when she was this way. He turned to his son. “Shane?”

Shane tugged at Carolyn’s shorts. “I gotta go potty.”

“Tarantulas, *Dad!*” Jess blurted finally.

“Right,” Goodman said. “But they don’t actually eat the spiders—at least not as adults they don’t. What the female wasp does is sting the tarantula and drag him off to her burrow. Then she

lays an egg on him and buries him alive. When the egg hatches, the larval form of the wasp—the wasp baby—is what eats the spider.”

“Gross,” Jess muttered.

“It’s all part of nature’s balancing act,” Goodman explained. “Think of how many tarantulas we’d have if it weren’t for predators like the tarantula hawk. Think of how many crickets and cockroaches we’d have if it weren’t for the tarantula.”

“I know,” Jess said. “It’s just that I hate wasps.” She sucked in air and shivered.

Goodman remembered. Five years after it had happened, he could still hear Jess’s bloodcurdling screams as the paper wasps swarmed over her bare arms and legs, some crawling in her hair. She’d been stung everywhere. One had stung her just below the eye.

“Why do they call them ‘hawks?’” Carolyn broke in.

Goodman smiled and wagged a finger at his wife. “Ah, yes,” he said. “That’s a question we get all the time. Just watch the wasp hunt. It’s kind of late in the day, but let’s see if there are any late feeders. Come on inside. Jess, you first.”

Goodman pushed his daughter toward the terrarium door.

With a cry, Jess broke free and ran.

“Tom!” Carolyn shouted.

Goodman gave a rueful laugh. Maybe he’d gone too far, but he’d been mad at Jess for giving him a hard time. Sometimes he forgot she was just a kid.

He led his family down the stairs and back into the courtyard.

Away from the showdown now unfolding inside the desert tank.

The wasp straddled the sword-shaped leaf and peered down over the edge, her antennae testing the air, two large eyes locking onto something.

There was movement in the sand below.

She’d waited hours, going without food or sleep, to stake out a suitable host for her young. Finally, something had come along.

A tarantula had emerged from its burrow to search for a meal of its own. It hadn’t eaten in days and was famished, so it chanced an early hunt in the late-afternoon daylight.

The wasp raised her reddish wings and crept so her head hung down over the tip of the yucca leaf.

The spider froze; its many eyes searched the walled habitat. A shadow fell over the miniature dunes nearby. A mortal enemy had taken flight.

The tarantula met its assailant, rising on its hind legs, its poisonous fangs ready.

Patience, the hawk hovered, humming a hypnotic song. For a few seconds, the tarantula didn’t move. Then the wasp swung in, her long front limbs batting the spider’s legs aside, her abdomen knifing forward.

The tarantula scrambled out of range.

The wasp landed and seized a hairy leg. She flipped the much larger spider on its back. Then she pounced, jabbing her stinger into soft flesh, anesthetizing her prey.

The tarantula’s legs curled slowly inward, like the fingers of a hand into a loose fist. It remained helpless as the wasp dragged it away.

Assignment

After Carolyn and the kids left, Goodman made repeated trips from his old office to his new one, beating a path between the two buildings. The day was slipping away, and he didn't stop until three new visitors interrupted him.

They were waiting inside Goodman's soon-to-be-defunct office: Larry Atkins and two men in navy pinstripe suits. Larry was Cal-Riverside's dean of science and Goodman's boss.

Larry gestured at Goodman's desk, which was still piled high with boxes. "Nothing like waiting until the last minute, eh, Tom?"

Goodman glanced at the two strangers, then at Larry. "What's going on?"

"Tom, these men are from Fish and Wildlife—they need to talk to you."

Goodman waited.

"I've already been briefed," Larry said. "And I've assured Agents Mitchell and Jackson that they'll have the full support of our department." He nodded to the government men as he headed toward the door. "I'll be in my office if anyone needs me."

Montgomery Mitchell and Ron Jackson were their full names. And they were actually from the Department of the Interior, which oversaw Fish and Wildlife. The government had sent in its brass to impress upon Goodman, and the university, the importance of the matter.

Mitchell was a nondescript Caucasian, between thirty-five and forty, with dark hair and shifty eyes. Jackson was a far-more overt man, a muscular black with close-cropped hair and a heavy duffel briefcase slung over his shoulder.

"Dr. Goodman, I'll get right to the point," Mitchell said. "We'd like to enlist your services for one week, at your current rate of pay, with a significant grant to your research."

"My research?"

"In parasitoids," Mitchell said.

Goodman drew in a breath. "I see. And from what I gather, there is some type of invasive species that's gotten out of hand, and you want me to advise a solution involving parasitoid control."

"Not exactly," Jackson said.

"Yes, not exactly," Mitchell reiterated. "Dr. Goodman, you understand you are under full non-disclosure?"

Goodman's eyebrows sank, puzzlement registering in the flesh just above his nose. He swallowed. "But if my expertise is parasitoids?"

Mitchell held up his hand. "I will explain that, Dr. Goodman. Please have a seat."

Goodman sat. He slid aside a stack of cardboard boxes and peered over the only other objects on his desk—a standing picture frame and a model of a wasp. He stared into Mitchell's eyes. "Go ahead."

"Dr. Goodman, parasitoids are not the solution," Mitchell said at last. "This time, they are our problem."

Goodman nodded as if he understood, for on a small scale he thought he did.

The Law of Unintended Consequences.

In 1924 Hawaii imported thousands of parasitic wasps known as *Larra luzonensi*, with the intention of controlling a single species of non-indigenous moth caterpillar that had been destroying the state's sugar crop. Companies of the wasps were released into the islands' sugar fields to destroy the pests without the use of pesticides.

Three years later, a biocontrol spokesman from the U.S. mainland reported "good results." Shortly after, the project was ignored, and then ultimately forgotten.

A team of British researchers conducted a follow-up study a half-century later revealing that the

wasps had only minimally impacted the targeted pest population. The reason: most of the alien wasp species had migrated into the forest's surrounding bog areas, some as far as five miles away. In these swampy settings, *L. luzonnensi* had thrived, wiping out a variety of harmless, indigenous butterflies—several of Hawaii's beloved species now gone. Goodman liked to call this phenomenon: The Law of Unintended Consequences.

"So," Goodman said, "you've got a biocontrol species that's gone AWOL?"

Mitchell frowned and gestured to Jackson. "Ron, you want to shut the door?"

Jackson returned and dropped a bound document onto Goodman's desk.

Goodman slid the report closer and fingered through it. "What's this?"

"It's the intelligence we have," Mitchell said. "All under nondisclosure. Read it right now. We're hoping you can provide the rest, which is all confidential and legally protected by nondisclosure."

"It's also a contract," Jackson added, tossing Goodman a pen. "Sign pages two, seventeen, and eighteen."

Goodman tapped the pen, flipping through the document. Moments later he glanced up. "Wait a minute. Why do you need me? Agriculture has its own biologists."

Jackson removed a manila folder from his briefcase and handed it to Mitchell. The cover read: Lucius Pond Ordway Preserve.

"The Nature Conservancy maintains a park in southwestern Connecticut," Mitchell said scanning the folder's contents. "It covers three towns, a fourteen-hundred-acre forest that's bordered mostly by residences. A preserve, but it's also used for limited recreational purposes." He looked up.

"The preserve has an informal name, Devil's Den, which I'll use for simplicity's sake going forward. . . . If you really need to know the story, the Den was once mined for coal, and residents in the area used to mistake the dark, glowing workers who emerged from the ground at night for the servants of hell. Trust me, this isn't relevant—but at least you'll know what I'm talking about when I say Devil's Den."

Mitchell returned to the folder and read. "Fish and Wildlife Agents Rubin, Tiani and Watson arrived in Weston, Connecticut on Tuesday, June 25th to investigate a Conservancy report regarding rapidly declining numbers among the park's gray squirrel population. The three agents entered the park." He cleared his throat.

"That was three days ago."

Mitchell approached Goodman's desk then leaned forward, planting his palms, his face duly grave. "Nobody's seen or heard from any of them since."

Goodman shifted in his seat. *He was an entomologist, not the missing person's bureau.* "I don't get it," he said. "Missing squirrels, missing wildlife agents . . . why do you need me?"

"Missing squirrels?" Mitchell stepped back. "It's a moot point, but I didn't say that."

"You said the local population of gray squirrels had declined."

"Exactly. But I didn't say that all of the declining numbers were missing. Read carefully," Mitchell said. He motioned to Jackson. "Ron, let's leave Dr. Goodman alone so he can get caught up."

Jackson opened the door, but Mitchell turned before leaving. "We'll be back in an hour. I hope you understand what a tremendous opportunity we offer you, Dr. Goodman."

The door shut. Goodman's eyes fell to one of the pictures on his desk: a photograph of Carolyn standing on a beach, looking splendid in a bikini. On the other side of the picture frame hinge, Jess and Shane were digging a moat with toy shovels. Goodman stared for a moment at the plastic model wasp. It was a duplication of the giant Japanese hornet, slightly larger than life. He slid the hornet aside, farther from the photos of Carolyn and the kids, and started to read.

Goodman was still staring at the report when Agents Mitchell and Jackson returned an hour later.

The report had told an incredible story: of a yet-to-be-identified invasive species destroying a wide range of fauna in a temperate forest in Connecticut.

It just wasn't possible—at least not in the manner that the report claimed and certainly not on the scale.

But what if what the report said was true? He was a scientist . . . he would want to see it for himself.

"I don't believe any of this," Goodman said.

Mitchell shrugged. "We thought you might say that." He turned to Jackson. "Ron?"

From his duffel briefcase Jackson withdrew a notebook computer.

The lights were out in Goodman's office, and Jackson had commandeered Goodman's desk. Sitting in the entomologist's chair, he punched a key on the laptop, which he'd connected to a mini-projector.

Mitchell and Goodman stared at the image on the wall.

It was a scan of an old black-and-white photograph: two men in their late twenties stood inside a jungle setting, dressed in safari clothes. At their feet was a dead or sleeping monkey.

"You won't find any of this in the report," Mitchell said. "This is background. The photo's from 1937, Bolivia. The man on the left is Maxwell Schlemmer, a Nazi scientist. One of the worst. Years later, he operated inside Dachau, experimenting on prisoners. Ron, take us in closer."

Jackson punched another key, repeatedly, cropping the photograph on the wall.

Goodman saw a faded close-up of the monkey. Its belly bulged.

Mitchell continued: "The war spread outside Europe, and Nazi soldiers began fighting in tropical climates. They also began dying. From malaria, spread by mosquito bites. Schlemmer, and Dinter, the other man in the photo, made frequent visits to South America in search of a legendary herb. A cure.

"Instead they brought back a monster. Next."

Goodman studied the image on the wall.

Another black-and-white scene, this time a dead or unconscious man strapped to an examination table. He'd been shaved and stripped down to his underwear. A dark stain extended from the prisoner's chin to his chest. A large caterpillar protruded from his throat.

It had torn the man's carotid artery.

Goodman rose from his chair.

He was looking at an endoparasite, the larval stage of some type of arthropod . . . only it couldn't be that.

"Dr. Goodman, what is that?" Mitchell asked.

Goodman hesitated. "Christ, it's ten inches long—and the circumference's gotta be six inches at least." He glanced back at Mitchell, warmed by a sudden realization. "The photo's staged."

"I wish. Next."

A color image—of a scruffy dog lying on a stainless steel slab. From the canine's stomach rose another killer. The parasite's head was black; eyeless. Its mouth was open.

"This coyote was discovered alongside a Connecticut parkway two days ago," Mitchell said. "Following special security protocol, the state DPW brought it into our possession. The photo was taken yesterday. I can personally attest to its authenticity." Mitchell checked Goodman. "Ever seen anything like it?"

Goodman moved closer, a few feet from the projection. “Like that? Definitely not. It’s some kind of larva, dipteran or hymenopteran. But the size . . . there aren’t any precedents. I would need to see an adult.”

“We’re working on that,” Mitchell said. “We’ve already brought in the best parasitologist in the country to try and make an identification.”

Goodman knew a few men deserving of such a superlative. He glanced at Mitchell. “Who?”

Jackson brought up the next slide.

The projection on the wall featured a thin, clean-cut man in his thirties. Goodman recognized him. Brown hair and pale complexion, the man stood before the coyote on the steel slab. His lab coat was smeared with blood, and he had a grave look on his face.

“I take it you know Dr. Hickey?”

Goodman nodded. “Dr. Hickey and I worked together five years ago. He helped me document the life cycle of the *Hymenopimecis* wasp of Costa Rica. We determined that—” Goodman stopped himself. “He’s a good choice.”

“I’m glad you approve,” Mitchell said. “And the respect is mutual. Dr. Hickey thinks the world of you. In fact, he asked for you by name.”

“I’m flattered.”

Mitchell continued: “These creatures, whatever they are, Dr. Goodman, can jump species at will. They are capable of parasitizing a variety of mammals, including human beings. You saw the photographs . . . what these things can do to people. We need an identification, a way to stop them before they spread.”

Goodman was silent, thinking. Something bothered him, something other than the images he’d just seen projected on the wall. He remembered the photograph of the man with the shaved head and the parasite bursting from his throat, and the talk about the Nazi scientist named Schlemmer. Suddenly it dawned on him.

“Wait a minute,” he said, turning toward Mitchell. “Those black-and-white photographs . . . where did you get them?”

The question seemed to make Mitchell uncomfortable. He started to pace. “I was hoping I wouldn’t have to go there, Dr. Goodman. Let it suffice to say that we obtained the photographs and background information through governmental interagency sharing.”

“No, it won’t suffice,” Goodman pressed. “This Dr. Schlemmer—that was his name, right? Why haven’t I heard of him? Surely he would have been tried and convicted at Nuremberg.”

Mitchell glanced at Jackson, then turned back to Goodman and swallowed. “Fair enough. Ever heard of Operation Paper Clip, Doctor?”

Goodman shrugged.

“I didn’t think so,” Mitchell said. “Not many Americans have.” He paced again, no longer making eye contact. “After the war, our then-government collected a number of talented German scientists and offered them clemency for their misdeeds. For some of them it was the way out of a certain death penalty.”

Goodman interrupted. “You mean like the dirty little arrangement our armed forces made with that rocket scientist . . . von Braun, was it?”

“That’s the one, and in return, these scientists, Schlemmer among them, were to continue their work here, in the United States, under U.S. guidance and in most cases in complete secrecy.”

“Let me guess: one of Schlemmer’s jungle parasites escaped from the lab?”

Mitchell shook his head, slightly aggravated. “Not on our end. Here, Schlemmer was relegated to experimenting with smaller, far less deadly organisms—tiny parasitic wasps and flies—for the

purposes of controlling local agricultural pests, similar to your work. That's what he did up until his death ten years ago. He left us no traces of his monster, not even any records."

"If that's true, then the creature must have been transported from South America." Goodman remembered the image of the parasitized monkey. "But how? Monkeys?"

"We believe so—though we've found no evidence of it. We've checked every pet store and experiment station dealing in monkeys, and we've come up empty." Mitchell sighed. "Obviously we're missing something."

Goodman's curiosity was piqued. "You said the creature was from Bolivia, right? Did you trace it back to its source?"

Mitchell nodded. "We've got someone checking it out." He glanced at his watch. "We have to catch a flight in an hour and a half, so grab what you need from here and we'll drive you home so you can pack." He restored the lights and Goodman took a last look at the image on the wall, of the grim-visaged John Hickey posing in front of the coyote and its murderous parasite. Then mercifully Jackson tapped a key and the picture disappeared.

Fifteen minutes later, they piled into a government car and headed toward Goodman's home.

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