

# NUMBER THIRTY-NINE SKINK

Suzanne Palmer

**Suzanne Palmer lives in western Massachusetts surrounded by trees and bugs. When it's not buried in snow (and when she's not busy with kids, job, or writing) she likes to putter around out in the yard. It is an inevitable enlightenment to realize that one's choices as a gardener are not always in accordance with the will of the garden, and despite our purposes we are great villains to the weeds. The gardener as hero and villain takes on an interesting twist in . . .**

## NUMBER THIRTY-NINE SKINK

I print a number thirty-nine skink, silver stripes that glow with their own light and its tail a resplendent blue that would make a lover of gems cry from envy. It forms and quickens under my microbeaders, first a flat plate of cells then rising like dough, Kadey's gourmet skink cookies. I feel that first twitch when it lives, where it fights to be born, but its scales, its internal meat mechanisms are not set quite yet. When at last I uncup it from its manufacture cell and let it free, it slithers away on its tiny toes, down and out into the foreign world.

Kadey is a human diminution, and not my full designation; Mike called me that and I cannot shake it, cannot shake the memory of him. The number thirty-nine skinks were his favorite of all my lizards.

Most will die, but some will live and eventually thrive. Lizards, snakes, burrowing bugs, thousands of creatures made of bits of patterns of all three, or none at all. I improvise, as needed. My designs are not meant to replace the natural hierarchy, but to crown it, a logical progression not a wild leap. Yet the desert outside, with its dueling suns, never could have dreamt of such things without me.

Those suns will set shortly. I will sleep through the brief twilight night, and when they rise again so will I, and I will move.

\* \* \*

Mike fixed things whenever they broke, and stayed even after the others had left. He puttered around in the cramped spaces within me, tinkering and touching and humming to himself a song that never seemed to have a beginning or end, or ever be quite the same. I studied it, and once made him a bird that sang its clearest notes; he thought that was funny but probably wrong of me. I made no more.

There are low plants in the new place I settle, native to this world. They grow as cones with a reddish purple tough exterior, their interior space cool and sheltered for seed. I try not to crush them, but they are thick here, the tallest nearly a half-meter high, and it is difficult. I have designed a bright purple millipede that lives on unicells in the soil and will colonize the cone interiors; in their deaths, my number eight millipedes decompose into nutrients that the cones require. It is a mutually beneficial arrangement, though there is a danger from too many millipedes. Even as I scatter a hundred egg packets, I build a dozen number five skinks, tiny red lizards, to keep the millipedes in check. In a few years, if I pass back this way again, I will analyze my work and see if the lizards in turn require their own predator. Balance is important, all the pieces moving together in a living dance.

It is sub-optimum that I am alone in this work. I have enough raw material to last another six standard years before resupply, though it is unclear if that will ever come. For all the complexity of the work I do, for all the size and power of my mind-engine, the *politics* of my builders still seem opaque to me. Perhaps in part that is because no one thought to explain to me why they were withdrawn, and Mike was either not privileged to, or did not understand, the full matter himself. It was not the sort of thing he cared much about.

In the end he grew his own cellular beast too, deep in his liver where I could not see it, and he would not speak of it until it spread its inky wings throughout his body and bled his life away. He apologized to me in those last semi-lucid days, as if it was his fault I could not fix it, as if I was more than just some machine crawling across an alien world knitting data into flesh. I wonder if, at the end, he had lost sight of my nature. Or have I? I have no one to ask.

The cones grow taller and more densely clustered as I move up the steepening hill. There are also new plants here, undescribed in the incomplete surveys whose edges I now skirt, and I stop to study them at length. They are long, thin tendrils of yellow-green topped with a rounded bulb. It is unclear how they have sufficient structure to stay upright until I gently pluck one for deeper analysis. The bulb is a thin membrane that can pass atmospheric gases selectively through, inhaling the lighter ones while keeping out the heavier. With the additional heat from the suns, the bulb is just enough to keep the tiny string aloft. I scan it, section it, break apart its structure and chemistry, absorb its secrets, add it to the sum knowledge of humanity and machine.

Regardless, I have killed it, which is necessary but regrettable.

I wait patiently as the suns set and watch a thousand balloons steadily droop until they disappear again among the cones. Then I also need to shut down and wait for morning to begin again.

\* \* \*

Something has happened during the night.

Two of my legs bear new, erratic, faint scratches. There are also small rocks stuck in the lower joints of one. This could not have occurred by accident, nor by any mechanism I can identify as plausible. This means that I have incomplete information, and I am even less pleased by that than I am by the rocks, which my external manipulators can easily pluck free.

Not long after the team left Mike and me behind, I stopped receiving automated survey updates from orbit. A hundred and ninety-three days ago, I crossed out of their carefully mapped territory and forged my own, a meandering path of small overlapping circles strung out into the blank gray of the unknown.

Ahead of me the terrain becomes more uneven, with outcroppings of rock dominating the horizon. I could quantify the growing depth and height of cones between here and there, but none reach half the height of the scratches on my legs. I remove

the rocks, place them carefully where there is bare ground between cones and balloons, and I move away to where the cones are thinner again.

I go about my day's tasks with purpose. I am careful to separate objective goals from the subcurrent of want that I have learned can lead me into errors of judgment. I engineer cones more efficient at fixing nitrogen in the soil, which will benefit both the native and imposed ecology. I record the pattern as number one variant cone and distribute them one per thousand among the originals as I pass. However, I reserve a larger portion of the energy I generate from the suns than I normally would, and by the end of the day I have made less than half as many lizards and bugs and new cones as I might have.

Night falls. I lock myself into a stable configuration with my solar collectors aimed toward the distant dawn horizon and shut down all external lights in the local visible spectrum, modified for the differences in frequencies between this planet's binary suns and that of a home star I left as nothing more than parts, plans, and unfulfilled dreams.

Atmospheric temperature drops. Via infrared, I can watch the gravelly sand around me cool quickly, and the small pockets of what was once cooler air at the heart of the cones become, instead, oases of warmth. There is no new data here, but there is something more satisfying about watching the gentle transition with my full array of sensors rather than simply parsing a night's recorded data the following morning.

Astrolabe expectations there are a handful of stars just visible. There are no constellations here, no mythology or history to be drawn on other than my own. And why shouldn't I? I name one group the Wrench, and another Coffee Mug. Mike would have approved; I rarely saw him without one or the other in hand. After he died, and after I had processed his body's data, I interred his remaining matter with his mug in a small hillside now nearly seven hundred kilometers behind me.

Tiny, glowing dots bristling with hair-like legs dig themselves up out of the sand and jump from cone to cone, like wingless fireflies, reveling in the cooler night air.

It is only after several long minutes of watching the glowdots that I realize some of the cones are also moving. For milliseconds I think I am witnessing the impossible, or some enormous flaw in the data I have painstakingly collected, before I detect minute differences between the mobile and sessile. There are fluctuations in the air around them consistent with surface respiration, and their cores are opaque, not hollow. The camouflage is near-perfect.

They are steadily if slowly converging toward me.

I have not bothered processing sound data since Mike's death, needing no tedious soundtrack of hums and whirs from my own workings, nor finding company or solace in the low whistle of wind stirring across the plains. Now, I turn those sensors back on, seeking, but do not find anything until I get down below 10Hz. There are low vibrations coming from all around, scattered back and forth, in a call and response pattern.

There is not supposed to be intelligent life here. There were surveys years in advance of landing. Is this why the team abandoned us? If so, why not take me up with them, or give me alternate instructions, a new purpose?

I have insufficient data to determine what I should do, so I do nothing, and observe as the faux cones form small, irregular groups and come closer.

One, nearest to one of my legs, extrudes two tiny pseudopods from the base of its cone-body and picks up a pebble. More arms appear in a double column, raising the stone up the slope of its exterior like the movement of cilia, until it is balanced just below the top point. A few others are also now conveying pebbles upward.

I can now pick out the false cones from the real ones, and discover there is an epicenter to the movement that corresponds also to volume of chatter; the farther from

the center of the noise, the fewer are moving. The primary radius of action is about eleven meters. Outside that circle, I watch as one of the glowdots lands on a stationary false cone. Faster than a human eye could detect, a hole opens up under the glowdot and sucks it in, closing again.

I had no idea that the night ecology would be so vastly different from the day; the builders gave me no reason to expect so, gave me instructions to shut down at night to conserve energy. So much data I have missed! I could reach down right now and pluck one of the walking cones up, take a full accounting of it molecule by molecule, structure by structure, integrate it into the larger dataset of life. But I do not. I feel I must reconcile the contradictions already introduced into my comprehension of my instructions before I proceed, lest I do harm where I need not.

I wish Mike were here; things always made sense to him. With him.

The boldest group of walkers has approached one of my unmoving legs. The tops of their cones flatten out, form a crater, and the pebble is transferred to it and then spat upward with surprising force. In moments it becomes a hailstorm of pebbles. They ping off my armature, leaving minute scratches. A few are lucky strikes and stick into various joints and crevasses in my leg. They can be easily removed, later.

There is no reason not to assume that this is a defense response and that I am perceived as a threat to the walkers. Given the short range of their apparent communication, that there is only one of me, and I have existed on this planet for only about two and a half standard years and in this spot for a few hours at best, the next obvious conclusion is that the walkers evolved this defensive behavior because there are other, native threats to them here.

I move an arm to pluck out the lucky pebbles, and the walkers scatter back into the safety of the cones and go still. I can still see them—a few remain within my reach—but I have enough information for now, from this place. I back away, seeking clearer ground, and the last, faltering clatter of stones subsides as I move away.

When I am safely on clear ground, eighty meters away from any grouping of cones large enough to have attracted walkers, I shut down for the remainder of the night.

\* \* \*

In the morning, I power up and begin work again. I have already made and released a half-dozen number thirty-nine skinks, their gemstone tails the last of them to disappear into the thicket of cones, before I realize I have reverted to comfortable routine as if the previous night's revelations had not occurred or had somehow been processed and discarded as irrelevant (which I have not done). There is nuance in my programming—intuition, spontaneity, the connective leaps that are a necessary component of true creativity—but letting those nuances lead my actions unfettered led to the mistake, is guiding me on an uncertain course now. I have three more skinks in my microfab unit, and as soon as they are done and alive and free, I halt production.

I have a segregated area in my memory blocks where the private records and logs and correspondences of the team were kept, as well as some limited operational and mission information. I do not have immediate access to them because of an irrational but all too human fear of how that information could be used by a superior intelligence to harm them. Mike told me once that the paranoia could be traced back to the misbehavior of an early, malfunctioning spaceship system named Hal, but the way he described it I do not think it was real.

Because there are circumstances where I might need those records, I *can* reach them. I have hard-coded inhibitions against doing so, except under circumstances of need where all my team is deceased or non-functioning. Abandonment is not one of the definitions of non-functioning provided to me, but if the crew has gone, then was not my only team Mike? And Mike is, in all ways that count, gone.

My logic must be sound, because my careful and considered opening of the mission records does not cause a cascade to fuse my entire datacore into an inert brick. It is the most affirmation that I am proceeding correctly that I can get, and I integrate the newfound information into my primary stores with some relief.

I turn away from the cone fields, moving downhill perpendicular to my prior path. Newly incorporated surveys indicate moisture in the low-lying distance—a potentially different ecology and a sidestepping of the immediate dilemma while I work through the additional data. I would like to make newts and salamanders and geckos, I think. Maybe even toads. They are peaceful things, and a joy to create.

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—KED-5, WITH AN ASSIGNED CREW OF FIVE, IS PURPOSED WITH THE SELECTIVE, SUSTAINABLE ENHANCEMENT OF THE LIFESPHERE OF KELOMNE. SIXTEEN KEDS HAVE BEEN DEPLOYED TO THE PLANET—

Sixteen? I did not know I was not alone, not unique. It makes logistical sense that I should be one of many, but the idea that there are others out there is strangely difficult to process. Why was that information kept from me? Where are the others? Do they know I am here, or do they labor on in solitude as I do? And, were I capable of indignation, the pressing question: do they still have their crews, where I have been stripped of mine?

As I descend along the low, sloping plains, the cones give way to a spongy orange moss, ragged at first but quickly growing lush. Hair-thin shoots, topped with pea-sized floats, wave in the increasingly humid breeze. Stepping upon the moss releases a pungent cloud of sticky, highly acidic spores; I am far less vulnerable to the irritant than biological life would be, but still I move on as carefully and quickly as I can. It is another defensive adaptation, though again against what I do not yet know.

Before long, I find a wide, slow river. On this side it has patiently cut its way down through a steep rock, forming a discrete boundary, but on the far shore it eddies along a dense proliferation of entirely unanticipated life. Lime-green structures rise from the ground or low pools in loops and curls, dive back down to form arches, entangle one another in tubular sculpture. The largest I can see are at least a meter thick at their base, but I estimate it likely that there are larger to be found in the deep of the tangle, where the tallest hoops are nearly thirty meters off the ground.

Where the suns shine on the surface of the tubes, they have split apart, like ten thousand tiny doors in a row flung open, revealing a deep green, glistening surface beneath. The flaps open and close in rippling waves to stay in the light. Sun-users.

For a fraction of a second, as the loops shift in the wind, I catch the glint of light off something shiny within, something the same ceramic-polymer blue as my own outer shell.

It had been my intention to sample and analyze river water along the near shore while observing the far, to mine the soil and air for its data, to do a night observation as I had of the cones, having been remiss in examining the other side of daylight's coin. Now, I want to step into the river, trust that its current is insufficient to carry me away, and cross. The urgency I feel is illogical, overwhelming.

But I hold back. I have already made one terrible mistake, though I am programmed to exercise care. Also, I know that if I break myself, Mike is no longer here to fix me, and no one else will come. I draw my water sample with haste and move down the bank, looking for an easier, safer crossing.

It is nearly two days' travel before the cliffside bank dips low enough to let the river spill over this side, spreading wider as it drags through marshes made of miniature versions of the loop trees. At its deepest points here the river is less than two meters, its bottom a relatively stable mix of rocks and fine silt. I cross to the shallows of the opposite shore and backtrack the way I had come, back to where I saw blue.

There are things that scuttle and leap among the arches of the loop trees, things that have bored into the trunks and disappear within as I come near. I should stop to investigate, but I defer for now; the ecology appeared consistent as I passed the other way, and I can catalog as easily in one spot as the next if that remains so. And there may be information ahead that is unique to me, that may provide me essential guidance on my mission.

At night, I move farther out into the water before I stabilize and go dormant. In the morning, there are tiny, fuzzy ball-shaped creatures sticking to my feet and legs that, with a brief shake, let go. Multicolored, they drift away like bright confetti.

When I reach the coordinates where I saw the hint of blue, I leave the water behind.

The loop trees become increasingly difficult to navigate through as I move deeper into the grove. I see now several that have been cut through with searing, mechanical precision, and with moderate difficulty I am able to move over to intersect and then follow this trail. It ends, not much farther on, in the corpse of my sibling.

Its legs have crumpled on one side, and its body casing sits at a precipitous angle, only kept from collapsing entirely onto its side by the loop trees it has fallen against. I can barely make out the etched KED-11 on its flank. It emits no signal, no signs of life. Somehow I knew it would not, but still I am crushed anew by my own solitude.

KED-11 has been badly damaged. Its surface is pitted and gouged, all its external antennae and functional appendages bent or splintered or missing entirely. Its hatch, by which its crew once came and went, is wide open. There is a foul smell from inside. Fearing for its human crew—even as the idea of rescuing someone alive, to have as *mine*, fills me with hope—I dispatch a small bot to peer inside.

The interior has been torn apart, fixtures ripped from the walls and machinery smashed and mutilated on the tilted floor, wires protruding and torn. There is a large quantity of organic residue and congealing liquids in piles on things. Whatever destroyed KED-11 did so with no discretion, no ulterior purpose other than to destroy. An intelligent scavenger would have extracted valuable parts and machinery, not smashed it across the floor and shat upon it. The expelled matter is the source of the smell; no human crew or remains are within.

I maneuver the bot to where the shattered screen of Eleven's interior interface is and connect to the small port beside it. There is a vast echoing null where Eleven's mind-engine should be. Even shut down, it should still *be* there, inert, in its matrix. All that is left are patchy remnants of the crew logs, which I take.

—INITIAL SURVEY BOTCHED—

—INJUNCTION, CRIMINAL PROSECUTION—

—ORDERS TO WIPE THE KEDS AND ABANDON—

I am outraged for my sibling machine, angry with its crew and our makers for discarding it so callously. Eleven's equivalent of my own Mike, an engineer named Randell, killed its mind and memory as the crew abandoned it, at the same time as mine left me. Did Eleven know it would die at the hands of its own crew, and accept that fate? There is no hint of regret in Randell's leftover words, only duty and an early return home to those things he actually cared for.

*The KEDs.* The plural is not an accident of imprecise language. Were, then, all my newly discovered siblings similarly disposed of? Why not I?

I break open Mike's personal logs and learn. His instructions were the same as Randell's.

Intelligent life. Illegal contamination of a class-three native biosphere. Retreat, escape, abandon evidence. And Mike's answer: cancer. He wanted to stay here, die with me. It was assumed he would take his own life after mine.

When I processed Mike's body, I mapped his chemical structures, the ones that

hold memory and intelligence and emotion. Have I adopted some of Mike's pathways in my own reasoning? Is that why I did what I did? Is that why I find his absence so difficult to bear? I am tired of more questions when I wanted answers. And I do not like those answers I have been given.

The suns have nearly set, and I utilized much of my energy reserves thrashing through the loop trees to reach this place. I leave Eleven behind—truly, Eleven is no longer here—and move back out to the edge of the river, set myself in place, and submit with relief to the blankness of night.

\* \* \*

They came at first light, at last, the hidden predators of Kelomne, the desecrators of KED-11. The sky is still too buried in gray for the suns to have woken me, but they are already through my hatch, milling in my interior, when they finally set off my alarms. Defenses against attack were not a thing my designers ever thought I could require.

The creatures are large, spindly, dirty white things with multiple, multi-jointed legs arrayed around a round central body. There are structures I can identify as eyes, and as I watch, one extrudes a tube from its body and deposits a pile of residue on my floor. Other piles already have been left while I slept.

Eleven was already dead. I am not. I electrify that manipulator, and the creature who had wrapped itself around it emits high-pitched whistles like a distressed teakettle as it tumbles back out into the encroaching dawn. I can hear it thrashing through the loop forest as I grab the one that just crapped on me and pin it to my floor so it cannot escape. As the rest flee I lurch out into the river shallows and begin examining my wriggling, shrieking captive. The remaining attackers melt back into the forest as if they were never here.

It is not until some minutes after the attack has ended that I realize that several storage cases have been opened. Most were empty, or filled with material for the crew no longer needed, but one . . .

The only one that mattered.

I should not have kept it. I should have broken it back down, built something else with the materials. But I could not bear to take Mike apart a second time, feel his heart stop again, even if the Mike I made never woke up. And now it has been stolen.

*Everything* has been taken from me.

I tear apart the whistler, piece by piece, take every secret it can give as it shrieks out the last of its life. I store its molecular components in my reserves and assimilate its information into my own data set, and I compute the perfect toxin. I move to the deepest part of the river, suns shining hard upon me, and I begin to build new patterns. Snakes that strike, spiders that climb and leap, giant wasps that sting and leave eggs to consume, all driven to multiply, all keyed to the chemical signature of the whistlers.

They are why the crews left us, killed us. Now I will remove them from the evolutionary plan of this planet.

For two days I sit in the water, aware of the eyes watching me from the loops as I soak up sunlight and make no outward move. Inside, I amass an army of dormant, deadly things. When I am finished, when I have enough to spread out from this place, to eventually cover this continent and spread to others, I reconfigure my exterior manipulators with cutting blades, and I move with greater purpose and certainty than I have ever felt before.

I blaze a new path into the loop forest, an arroyo to the heart of the monsters' refuge. I hear and see and sense the whistlers all around me, fleeing ahead, scattering beside, falling in behind, but I do not care. I cannot be stopped by anything they can do to me, throw at me, excrete on me. One leaps for my hatch and I cut it down, halved in mid-air, and do not break my pace until I reach, again, the dead and dese-

crated hulk of Eleven.

I turn in place, surveying the space around me, noting but unconcerned by the destruction I have so uncarefully meted out against the loop forest, so against my normal nature. This will be where I make my stand, the epicenter of my justice.

I warm the cells of my new swarm, waiting with impatience for that first twitch of quickening. The whistlers wheel frantically just out of reach, in and out of the mutilated loops, not quite yet daring to cross the gulf to me.

The first of the wasps reflexively uncurls in its manufacture cell. Soon, now.

The whistlers make a coordinated assault, rushing me from all sides. I am prepared for this, fully charged, dangerous in three hundred sixty degrees all around, as well as above and below. I swing my bladed arms, even as I use my other manipulators to hit, crush, tear, fling. Even mid-melee I am assessing, listening, watching, and when I am certain, I pluck what seems most likely the leader from mid-air as it tries to flee. It has the tip of one of my antennae in the curl of its arm; I had not even seen it break it off.

The whistler's arms are surprisingly strong. I take one each in two manipulators, and begin to pull it apart, testing its resistance, seeking its breaking point. It is screaming.

"Kadey?"

I stop. Everything stops, or seems to.

When I turn, he is standing there. Mike. Not the original, but the Mike I made. His naked skin does not have the sickly pallor, the swollen gauntness that beset the original in the last weeks of his life. He is awake, whole, *alive*.

The whistlers crowd between him and me, pushing him away, trying to shove him back into the loop forest. I hurl the one captive in my arms away and bring all my manipulators to bear on those who have interposed themselves between us.

I raise the saw, and it is Mike who steps back. Fear is wide in his eyes. "Stop!" he cries, as if I were attacking him, as if I could ever hurt him.

I stop again, lost. "They stole you," I say. I am unused to hearing my own voice.

"I think they think they rescued me from you," he says.

"They are monsters," I answer.

He holds out his hands.

I put my sawblade arms away and step forward, looming over him. The whistlers give one final tug on his legs before they abandon him and scatter. In Mike's cupped hands is a flattened, dead lizard, one of my skinks. Its brilliant blue scales are coated in blood, in displaced meat. I can tell from the pattern of damage, from the crushing pressure necessary to result in this condition, that it was I who stepped on it without knowing.

"We're the monsters here," he says. "This is all my fault."

"No," I say. Then: "You wouldn't wake up."

He sets the remains of the number thirty-nine skink down gently among the tattered trunks of loop trees. "I remember dying," he says. He shakes as he says that. "I didn't know how to be alive any more. I don't understand."

"I was all alone," I say.

"You weren't supposed to be," he answers. He stares down at his hands, then at the ground, for a long time. Then he looks up, over at the battered hulk of KED-11. Tears are forming in the corners of his eyes. I have never seen Mike cry.

There are several whistler corpses in the cut clearing. The living have fled out of sight, though I know perfectly where they are, know they are watching us both. I do not know, now, why I have done any of this. "I am sorry," I say. "I read your patterns and pathways and incorporated them into my understanding, into my function, as I do every pattern. They have made me unstable. I do not know what to do next. I do

not want to be alone.”

“Me either,” he said. “Eventually the company will discover you’re still functioning, that I am—well, not *me*, anymore—and they’ll likely put an end to us both. Legal nightmare, if it got out.”

“And until then?”

“We don’t have to make anything. We can just go see. It’s a whole world, just for us,” he says. “Do you think you can do that?”

Inside me, my army of poisonous things is settling back down into sleep, into disassembly. It is unfair to them to be brought to the threshold of life for one purpose and then have it taken away, but it is for the best.

“I have made too much,” I say. I open my hatch and bend my legs so he can climb in. Then I walk out of the loop forest, past the silent eyes of the watching whistlers.

They follow discreetly behind, but they let us go. I do not think they would let us ever return, but we will not.

The two suns above are near setting, but I want to cross the river and be away from here before I rest. I want to show Mike the night glowdots, and the walking cones, and everything else I have seen since he left me. Whatever time we have, it will be enough.

I hope he does not ask me about his mug.

“I didn’t really discover short SF until I was in college, where I spent many afternoons slouched in a rather decrepit chair in the UMass Science Fiction Society thumbing through well-loved old issues when I should have been studying. I’ve been a reader of Asimov’s ever since; for all those decades, and all those stories, the one thing that is always consistent is that there is something in each issue that is a treasure, a surprise, a spark of new. It continues to be a surreal joy to see my own name occasionally in its pages now, but the very best thing about it is the company I am privileged to keep.”

—Suzanne Palmer