

Aconie's Bees

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A worker of the *Mega chile pluto* tribe—insecta, hymenoptera, leaf-cutter, resin bee—rumbled heavily through the air. Biome morning: light stretched thin as a veil of citreous bio-skin on the stone of Aconie's cliffside cave. The *M. pluto*, large as Aconie's hand, burred and buzzed her wings, speaking of loss and darkness at the heart of things. Aconie held an arm out, and the worker lit on Aconie's wrist. The bee's six legs needed a tattoo of unrest. Aconie studied the *M. pluto*'s dark body, beetle-like horn mandibles, precise amber furring: she was confused by the giant bee's strange premonitions of ending. It was a tenor of bee-speech she had never heard.

Aconie sat outside her cave. Below lay the lush garden jungle of the biome. It was a blue-tinted green—sages and salvias, rosemary, catmint, hyacinths, lupines, flax and lobelias, dark irises, artichokes and starflower, asters, anemones, agapanthus and ajuga reptans, empress trees like indigo clouds, and blue junipers bordering groves and plantings—and studded with indigo-blue buildings constructed of light-fractured energy panels. The biome tumbled up and down the valley bowl, blue spilling over into the surrounding peaks. Beyond the peaks the edge of atmospheric dome clouded with frost, and beyond that, outlands.

As the *M. pluto* rumbled over her hand, Aconie watched the progress of five of the biome's two-legged residents up the rocky path.

"Witch," said Sestino as they arrived, her nod of respect echoed by the other four.

They called Aconie witch, the human descendants of the biome's first, accidental colonists. Their ancestors, refugees who broke into the biome after crashing in the outland, had known Aconie for what she was.

The descendants settled in a loose half circle around Aconie, where she sat on a flat-topped rock. They began their report.

"One of the honey-maker tribes let me taste some comb yesterday morning," said Kina, among the oldest of the descendants, longest apprenticed to Aconie in the art of bee-speaking. "It had a trace of bitterness to it," Kina said, the wrinkled skin of her face, gathered in minute ochre folds, stretched and crinkled as her brows rose and she frowned.

Sileni, nearly as old as Kina, said, “Last night, as the blue-banded *A. cingulata* vibrated the pollen from the sage, they hummed of a strange flavor in the growing things, like the taste of death, but different.” He rubbed a hand at his chest, thoughtful. His skin was dark as the *M. pluto*’s body segments. “I asked them if it was like the flavor of orgasm, in mammals, perhaps—different from that of flora—but the blue-banded only laughed at me.”

Toko, whose skin was pale as the paper cells of a wasp’s nest, was very young, newest to bee-speaking. Toko said, “The Bombini that work in the nut groves and food gardens all talked of the same uncomfortable dreams and strange tastes in the air as the blue *cingulata*.”

Jode, whose kind eyes and smile lit his face, said, “I heard a solitary euglossini singing among the odantaglossium yesterday afternoon.” He looked off into a private distance, no smile now, “It was a lament for an orchid that no longer grows, whose perfume he won’t know again. I know it was only a flower, but the euglossini was so very sad.”

Sestino, the tall slant-sister at the head of the group when they arrived, said, “I sat with a red *osmia* queen in the western caves, and she, too, laments. Please, witch, what are we to understand from the bee clades’ unrest?”

And Toko, with the determined clarity of the very young, said, “We have to help them; how do we help them?”

To Aconie, of course, they were all young. She considered Sileni’s words, *like the taste of death, but different*. What was like death but death? She raised her arm and sent the *M. pluto* on its way, a heavy thread of humming flight into the morning air.

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After reporting, the descendants went back down the cliff, to their lives and the collection of more reports from the bees, all but Sestino, who stayed to assist Aconie with the day’s batch of requests.

Aconie made a hybrid fruit tree seedling, several delicate panes of skin for grafting, and an orchid pseudobulb for Jode’s mournful euglossini pollinator. Projects, for seeds, seedlings, or niche fauna were dictated by Aconie’s interpretations of the bees’ observations of the biome system as a whole, as relayed to her through her bee speakers. Other requests came from the descendants, coordinated through their two healers.

Halfway through the requests, she glitched on a heart valve and had to start over, the delicate structure ruined.

She’d never glitched on anything before.

Reabsorbing the glitched valve, Aconie began again. Palms up, she secreted bio-ink in two small globules, joined the globes into one palm, and spit into it. Her saliva contained nutrients, oxygen, and nano-structures that she rolled into the translucent, viscous ink, forming a lattice of micro-channels, capillary beds, blood vessels and vasculature. As it gained structure, Aconie sculpted the globule, giving it shape. She worked from templates as basic to her as hive construction to the bombini.

When the valve was finished, she set it into the keeping jar Sestino held out.

Aconie rested a moment, taking in the heat and light of the biome’s star to recharge. Secreting more bio-ink, she went back to work on the day’s projects.

When Aconie had finished, Sestino said, “What happened? You,” the slant sister shifted angular shoulders, “had a difficulty.” There was a trace of question in the observation.

“There was a glitch in the patterning.”

“A . . . glitch?”

Reading human faces wasn’t a skill native to Aconie’s design, but she had come to understand the puzzlement now on Sestino’s face well enough. “I missed a step in the forming,” she said. “As if, when constructing a building, the builder left out an essential structural element from the architect’s blueprint.”

This was only of limited help, judging by the expression Sestino now wore. But thoughts moved in her eyes, in the minute wash of expressions across her face.

Sestino packed keeping jars, assorted seeds, and the pseudobulb into a carrier, gave farewell, and set off down the tor.

Aconie stood and stretched, paced and pattered about her simple dwelling, the combination of solar light and activity recharging all her systems. The structures in her skin, that went down into fascia, muscle, vein, and bone, were similar to those in the indigo panels of the buildings below. She drew in energy that her body converted to bio-ink, catalyzers, and nutrients in her saliva and the oils in her hands—as bees converted pollens to honey, propagating flora in their wake. In the biome’s beginning, Aconie had printed and seeded the first plantings, its first bees, ants, birds, reptiles, and small mammals. The biome had never been meant to have buildings, or a name other than Aconie Resource Biome 2316. But the accidental colonists had come, built their blue polis with the remains of their ship’s habitat dome, and called it Diànlán.

When the light shifted to the dark gold of biome afternoon, Aconie settled once more on her flat-topped rock and went into diagnostic mode. Deep shadows moved among the indigo buildings and gardens below. Diagnostic completed, she analyzed the results, falling into a kind of regular meditation, doodling designs that combined elements from this and that entry in her internal speciation library.

Fingers tracing shapes in the air, Aconie formed a hybrid Lepidoptera and *Pteropus*, calling a flying fox-moth into temporary being, giving it the furred, pointy-muzzled face and body of the *Pteropus* and the large umber- and slate-inked, root-pale wings of *thysania Agrippina*, white witch moth. It floated the length of several breaths, a fleeting glimmer, eroding away as the coposant luminescence decayed.

It came to her then, what the bees were sensing.

Sometime before the accidental colonists’ arrival, the drone harvesters had stopped coming to Aconie Resource Biome 2316. The resources for which the biome had originally been seeded—food and medicinal materials—no longer collected. It was not Aconie’s function to question this nonevent. Then the refugee ancestors of the descendants came. In the metric of the biome’s life, their presence had been efficient, their use and tending of groves, gardens, woods. Ensuring the efficient life of the biome was Aconie’s function.

Examining her own diagnostic results and the structure of the thousands of speciation templates within her, she saw. When the collectors stopped harvesting, some signal had been triggered. The telomeres of every living thing in the biome had begun to shorten artificially. Now, these many years later, every living thing of the biome, including Aconie, was ending.

Everything but the descendants, who had not been created from the signal-susceptible materials originating within Aconie.

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Sestino came up the trail to the witch’s cave in the night. The familiar path was strange in the thick dark of Diànlán’s turn away from the planetoid’s solar body. Scents of madder and mineral, released by the evening’s rain, energized the air. Small night lizards scurried from her steps.

Rather than speaking with the bees after delivering the witch’s workings, Sestino had spent the afternoon and evening immersed in Diànlán’s fragmentary archival records. The fragged feed made her head feel like a broken energy pane—which accounted for how few of her people accessed the records anymore.

She found the witch—*self-maintaining humanoid bio-printer*; Sestino corrected herself, mouthing the newly acquired term—seated on her flat rock, eyes closed. She seemed to be asleep.

Did self-maintaining humanoid bio-printers sleep?

Sestino folded her lanky angles to sit on the ground. She munched on the white carrot sticks she’d brought with her and watched the slow changes in the light. As dawn sifted through the valley below, the witch opened her eyes.

She seemed to take a moment to recognize Sestino, and then she said, “Descendant. Sestino.” Something flicked through Aconie’s expression. Sestino waited to hear what it was.

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Aconie made many bees in the beginning. Solitary bees, tiny iron-red bees, ether-blue bees;

nocturnal bees for the planetoid biome, whose night was long; deep black bees, cuckoo bees, genus *Thyreus* in shiny blues and teals, bees brown and green as cypress bark and needles, leaf-cutter bees, the large and lumbering *M. pluto*; *Bombus dahlbomii*, fluffy and ginger, pollinating the bellflower or copihue; bees with plume-like setae, pollen baskets in hind legs for gathering aromatic compounds; placid bees, angry bees, hardworking bees; the honeybees that formed linguistic networks, hive minds.

Now, the bees started to die.

They fell all across the biome, raining from the air, expiring in their hives and nests, dropping from blossom and vine like fat tears of hardened sap. One evening, as Aconie sat on her rock, the *M. pluto* worker came to visit her, the same one that often came that season, bringing her lament, seeking solace.

The *M. pluto* hovered, a heavy burr in the air. Her vibrations reached Aconie, shivered all through her. *There's no hope*, the *M. pluto* said, and then, contradictorily as she lowered to Aconie's palm, *Never give up*. Shortly after that, she died, becoming the shell of an *M. pluto*, a specimen.

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Aconie sent Sestino and the others to take samples from each and every human in the biome.

"The witch has a plan," Sestino and the other bee speakers told the descendants as they crossed and spiraled the biome, walking every path and byway and returning up the cliff to Aconie again and again, delivering the template of their people.

The bees littered the ground like fallen leaf and blossom. The rest of the biome slowly followed; the oldest trees and briefest-lived flora went first, withering from the inside out.

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One evening five biome days later, Sestino, Kina, Sileni, Toko, and Jode trudged up to the witch's cave with the last of their collection efforts.

The human inhabitants of Diànlán numbered 1,981; Sestino was footsore and weary. Yet now she watched, never tiring of the sight of flakes of skin, blood from vials, and threads of hair seeming to erode into the air just above Aconie's cupped palms, sink into them, and disappear into her.

When the witch was done, she closed her eyes. Light in complex, fast moving nets washed up through her brown skin, back in, surfacing and receding.

Sestino looked out over Diànlán. The deep blue had withered to a bruised beige or burnt brown in strands and veins all through the valley. Over the days of collecting, walking the biome, she'd seen groves of withered trees, devastated crop gardens, dead animals, insects in drifts, their home dying around them. Her fellow bee speakers, Kina, Sileni, and Jode, wore fear and grief like heavy robes. Only Toko, in youth, still had some lightness in their step.

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As she had absorbed the shell of the *M. pluto*, so Aconie did with each of the samples, drops of blood, single hairs, cells of skin—biomatter clean of the kill switch in her own patterns.

Adjusting templates and lining up gene sequences within, she fed the scintilla of life into each one, synaptic flash breathed into each lattice as she rolled it between her fingers, forming the pattern within it. *Plantae*, *fungi*, *animalia*, but also *bacteria*, *archaea*, *protozoa*, *chromista*. Seedlings, bulbs, and root balls, insects, worms, and spiders, bird, mouse, frog, and on and on through the night and into the morning. The speakers watched and slept by turns around her, though Sestino remained awake, watching the night through. As morning leavened the dark, Aconie began, finally, to remake the bees.

Nocturnal bees for the planetoid biome, whose night was long; solitary bees, tiny iron-red bees, ether-blue bees, deep black bees, cuckoo bees. Genus *Thyreus* in shiny blues and teals, bees brown and green as cypress bark and needles, leaf-cutter bees. *Bombus dahlbomii*, fluffy and ginger. Bees with plume-like setae, with pollen baskets in their hind legs for gathering aromatic compounds. Honeybees, hivemakers, linguistic networks ready to evanesce within them. The large and lumbering, her beloved, *M. pluto*.

ANALOG

It was the last of her, in the ninth *Mega chile pluto*'s large body. Her memories, her knowledge, printed into the *M. Pluto. Mega chile pluto* tribe—insecta, hymenoptera, leaf-cutter, resin bee, Aconie Resource Biome 2316 self-maintaining humanoid bio-printer.

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“Witch? Aconie?” But the witch, like an abandoned wasps’ nest, was empty. Sestino’s eyes stung, her nose and throat thickening as tears spilled.

The last bee that had lifted from the witch’s palm, a *Mega chile pluto*, large as Sestino’s hand, burred and buzzed her wings. Sestino held an arm out, and the worker lit on her wrist. The bee’s six legs needed a tattoo of joy. Sestino studied the *M. pluto*’s dark body, beetle-like horn mandibles, precise amber furring.

I am here, the bee said.