

EVOLUTION NEVER SLEEPS

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6600 words

Death came instantaneously to the deer. The dark blue semi had been laboring up the final quarter mile of the Sherwin grade, fighting the rapidly thinning air. Its headlights picked out roadside pine trees, their nearest branches blown away by the snowblowers of winters past. As it crested the summit the truck began to pick up speed, hitting its stride on the gradual downhill. It was a crisp summer night, sky sprinkled with stars, light traffic on route 395.

A few miles later, just beyond the offramp to Mammoth Lakes, a six point buck leaped off the shoulder of the road into the truck's grille. The lifeless body arced back to the right shoulder of the road, landing in a crumpled heap amidst the low shrubs. The truck swerved slightly, shifted gears and roared off toward Bridgeport. The stars glittered coldly over the slightly twitching body. Blood no longer pumped by the stilled heart trickled out of its open mouth. After a few minutes there was a soft stirring sound in the shrubs near the deer.

#

Fred Morales aimed his orange stake bed truck at the shoulder where the deer lay, happy to have finally found the carcass. He'd driven by the site twice without noticing it hidden there in the bushes. But the motorist who'd called it in to Caltrans had been right about the location after all. This was the last one before lunch. The sun reflected off the hood of the truck into his eyes and he was thirsty. What a job--collecting road kills. This one was pretty fresh, belly not too full of gas. It wouldn't be half bad, and there was a breeze to boot. Nevertheless, he stood carefully upwind as he tied the rope around the legs.

There was a sudden rustle and a flash of movement in the small grey green shrubs next to the carcass as the winch started to move it towards the truck. Morales leaped back onto the asphalt reflexively, before the front of his brain realized what he had seen.

"Squirrels," he said out loud. "Just squirrels." His heart pounded. Sometimes there were snakes under the bodies. Morales didn't like snakes, didn't like to be surprised by them. He blew out a long breath to steady himself. "Just squirrels." Nevertheless, he hurriedly finished winching the carcass onto the Caltrans truck with the other road kills and drove away without looking back.

#

"What do you do--sample 'em before you bring 'em in?"

Ron Feister squatted down and poked at the carcass Morales had unloaded at his feet at the dump site.

"Huh?" Morales looked where the Fish & Game biologist pointed. Several places on the carcass had been nibbled, small red patches against the dusty brown of the pelt.

"See what was eating this deer?"

"Wasn't nothing on it--no birds..."

"Nope, no smell, too soon for buzzards. Not right for coyote either. They tear off pieces, drag 'em away to eat."

"Only thing I saw was squirrels."

"Squirrels? What did they look like?"

"Dunno... little, fast, you know, ...with stripes."

"Chipmunks, you mean? Stripes on the head?"

"Guess so."

Feister stood up. "Huh. Where did you get this one?"

"395, near 203. Why, something funny?"

"Just a little unusual. Let me know if you get another one like this, OK?"

"Sure. You done? I want to dump the rest of these stinkers."

"Go for it. See you, Fred." Feister strode off towards his truck. *\*Chipmunks? I'll be damned.\**

#

Janice Reidel stopped her jeep as she came to the dead snake lying on the grey asphalt. In her mind she spun a prayer wheel for the soul of the dead animal before alighting from the vehicle. She admired the smooth scaly carcass. The graceful sweep of its body was interrupted where the car tire had squashed it. A small pocket of pink guts squeezed out through the dark stripes on the scales. *Striped racer*, she decided, picking it up by its tail and gently tossing it into the roadside bushes. She always did this to road kills. Left on the asphalt, the kill would tempt scavengers like buzzards, ravens or coyotes onto the roadway, where they were apt to be hit themselves. How often had she seen ground squirrels scatter from a fallen colleague's body as the jeep approached? The tar pit syndrome. *I'll tell Jeff about this one when he calls tonight.* She headed back to her research quarters at the Sierra Nevada Aquatic Research Lab, SNARL emblazoned on her cap. She particularly enjoyed the scenery, rugged colorful mountains meeting the flat sage covered plains of the Great Basin, here on the dry east side of the Sierra Nevada mountains in California.

Janice was one of a dozen first year graduate students doing summer internships at SNARL, hoping to find an interesting problem for a thesis. Despite the lab's name, most of them were working that summer on terrestrial problems, especially ground squirrel behavior.

She and some of the other interns spent four-hour shifts observing the animals in a large enclosure. It was organized tedium, like much of scientific research. She was learning, however, that it was the only way to attack the complexity of nature.

#

"A striped racer? No way." Jeff's voice came through faint crackles on the phone. "You're at 8000 feet--they don't get up that high."

"The snake didn't know that. I'm sure it was a racer-- black with long pale yellow stripes on the sides--what else could it have been?"

"A flattened chipmunk?"

"No, really. It was a snake. You're the herp expert. I expect you to know everything about them."

Despite being a graduate student in math, Jeff was an avid snake hobbyist. It was one of the unexpected twists in his personality that set him apart from other men Janice had dated.

"Hm. How far from Hwy 395 was it?"

"A few hundred yards, why?"

"You sometimes get unusual sightings near the interstate. People lose animals from their cars, or they dump 'em."

"Sounds far-fetched to me."

"So's that snake at that altitude."

"Look, I'll go get it tomorrow and preserve it for you."

"Yum. Snake preserves. My favorite."

"Ha Ha. Listen, when are you coming up? It feels like forever since I've seen you."

"Miss me, eh?"

"Mmm, you bet."

"Woman, you're the one who left, not me."

"It's just a summer fellowship. I didn't emigrate. Look, you could write those old equations just as easily up here in the gorgeous mountains as in sweaty old Berkeley. There's even a spare cubicle in the lab building until the end of July. And you could explore for snakes while you're up here."

"Hm. Tempt me some more. What are the sleeping arrangements?"

She laughed. "The natives are still very friendly."

#

The next morning, before her 4 hour shift watching the squirrel enclosure, Janice went back to look for the snake. She leaped from the jeep, strode over to the bushes with her usual no-nonsense gait and was surprised to find only a few scraps of bone. Surprised, she pulled back. *Wow, that was fast. Someone was hungry.* She started searching carefully, hoping there was still a piece with some skin on it, enough for Jeff to look at. *There.* About three inches of snake tail lay just beyond her reach.

As she stepped around the low bushes, there was a flurry of activity as a chipmunk darted away from her, scattering the pumice gravel. *So that's who's been eating my snake. Hungry little bugger.* There was a flash of movement to her right, and she became aware of several more chipmunks among the shrubs. They were all watching her. *Sorry, guys, but I need this bit.* She squatted down and reached for the piece of snake.

Before she could touch it, a chipmunk dashed forward, causing her to jerk her hand back. She expected that the movement would send it running in the opposite direction, but instead, the small animal crouched down and started making its alarm cry: shrill repetitive bursts of sound, tail jerking furiously. *It's almost as if he's defending it.*

She felt suddenly vulnerable, in shorts and sleeveless top, without even her trusty leather gloves. Rodent bites were painful and took a long time to heal. An encounter with a lab rat had left a permanent scar on her third finger. This was certainly atypical behavior. Maybe the animal was rabid.

Off to her right another chipmunk started to chirp, then another. The stereo effect was unnerving. There seemed to be about a dozen chipmunks scattered throughout the shrubs in front of her.

She looked again at the closest animal. It showed no sign of wanting to leave, back arched slightly, head high, tail jerking spasmodically with each shrill bark. She felt the sun hot on her scalp. Up this high, with little protective atmosphere above, she burned easily. Her hat was in the jeep, of course. Another minute passed. Stalemate. If she went for her hat she'd lose the snake. Her knees began to ache and she knew she'd be lightheaded when she did finally stand. The piece was probably too short to be diagnostic anyway. "Oh, all right, keep your damn snake if it's that important."

She stood up, stars swimming in her vision. *Damn low blood pressure.* The closest chipmunk lunged forward, grabbed the piece of snake with its teeth and ran off. As it reached the others they spun around, and followed it into the shrubs.

*Bizarre. They seemed to be working together, like a pack.*

#

Professor Daniel Branton scowled at her as he meticulously picked a tiny crumb of sandwich from his forearm. "Chipmunks don't exhibit coordinated behavior. They're basically loners, scavengers."

"But it was so definite, I know they were working together."

"There's never been anything in the literature to indicate that chipmunks behave in groups."

"Well, maybe this is something new."

"What you saw was just normal duetting behavior. One animal barks, then the others join in. That's all."

"What about the animal that wouldn't let me have the piece of snake? That's not normal behavior."

He snorted. "You students need to be more observant and less imaginative. An animal of that size is not going to stand up to a human."

"But that's the point, it did. And furthermore, it wasn't alone..."

"I doubt that." Branton crunched the empty sandwich wrapping into a ball and picked up his empty drink can.

Janice swallowed her annoyance, felt her face flush. Branton was known as a prissy nitpicker. She should've known he wouldn't believe something out of the ordinary from a mere graduate student. Unfortunately, he was the ranking professor at the lab, and would be on her advisory committee if she picked a thesis problem in animal behavior. She could not afford to alienate him, but this was too intriguing to just let go.

"But if they are cooperating it would certainly be an interesting problem."

He looked at her sharply. "Open-ended research like that is not for graduate school. You need to pick a problem with a definite answer, or you'll never finish. The University can't afford to keep on supporting doctoral candidates indefinitely, you know."

"But if I wanted to test the hypothesis that they were cooperating, what would you suggest...?"  
*Can't hurt to ask his advice.*

He stood up to return to the research center. "That's pretty obvious. Duplicate the conditions, observe carefully, and record the data meticulously, the way I've taught you for enclosure research. But it's a waste of time. Stick to your enclosure observations. Ground squirrels are inherently more interesting."

"I'll do it on my own time. And thanks for the advice." *A good graduate student must always be submissive.*

Branton strode off, waving his hand vaguely behind him in response.

Amy Chang, another first-year graduate student, grimaced at his retreating back. "Ground squirrels are inherently more interesting," she muttered in a low voice that aped his didactic tone. "What an asshole."

Janice suppressed a smile. She also didn't share Branton's enthusiasm for the endless mate-substitution experiments he was conducting in the enclosure. Few of the graduate students did. Still, that was her summer grant money.

Amy brushed black bangs out of her eyes. "For what it's worth, I believe you. The chipmunks have always seemed to be brighter than the ground squirrels anyway."

As if on cue, a chipmunk began its alarm cry from the tree a few yards away. They were sitting outside, in a small clump of pines close to the lab buildings that functioned as a rustic picnic area. Janice studied the ground next to the log she was sitting on: large black ants were busily combing the fallen pine needles. "Nature's garbage collectors," she said. "Without ants, we'd be knee deep in dead moths."

"They're great scavengers, all right," agreed Amy, "and what a system they have: a lot of unremarkable individual units that together make an unstoppable army. And they find everything that's edible. There's no hiding from them."

"You know, in a way, those ants make me think of the chipmunks. If they were organized like ants, how would we live with them?"

"What do you mean?"

"Think about it — you know what a nuisance ants are at a picnic. What if an organized group of chipmunks descended on a table full of food?"

Amy paused. "Hm. I'll bet they could carry off most of the stuff without much trouble."

"Right. And do you know what would happen if someone tried to stop 'em?"

"Dunno, what?"

"They'd be picking teeth out of their hand. Rodents are pretty aggressive. Despite what Branton said, they don't hesitate to attack an animal much larger than themselves. Look at this." She showed Amy the scar on her finger — two white semicircles left by the sharp incisors of a harmless looking white lab rat. She remembered her surprise at the rat's unprovoked attack.

"I remember reading that rats in slums bite sleeping babies. Even kill some of them," said Amy.

"Yeah, and during plague years in Europe the rats crunched the bones of the dead bodies."

"Ugggh. But those were rats."

"Chipmunks are just rats with stripes, bona fide rodents with all that implies."

"Yes, not like my birds. Even sea gulls are better mannered than rats."

"Oh yeah? Remember that Hitchcock movie about a lot of birds attacking the people in a little town?"

"Oh, that one. I read somewhere how they trained all those birds to peck people. But it wasn't real. There wasn't any reason for them to act like that all of a sudden."

Janice let out a deep breath she didn't know she'd been holding. "I always thought it was a frightening movie, to have benign creatures suddenly become threatening. And what I saw today was real. Those chippies really weren't very friendly. I'd hate to go into the woods alone if large groups of any kind of rodent were out looking for trouble."

"The Attack of the Killer Chipmunks, eh?"

"It sounds silly, but that's because we've been conditioned by Disney cartoons to think of them as lovable, harmless little creatures."

"Well, you have to admit they're pretty cute."

"Only if you romanticize them. Take those damned ground squirrels, for example. If the females get too upset at living conditions, or if they're caged with a strange male, they kill their young. Bite off their heads."

Amy shuddered. "You're really serious about this rodent menace, aren't you?"

The chipmunk continued to call from the tree. Janice lobbed a pine cone at it halfheartedly.

"Well, before I get too carried away I need to prove what I saw. Branton said to duplicate the conditions."

"So throw them some more snakes."

"Huh? Oh, you mean road kills. Yeah, there must be plenty. Maybe when Jeff comes up he can find some."

#

Late that afternoon, Janice was working in her cubicle in the lab when she heard a familiar male voice outside her open door. "Janny babe? You in there?"

She leaped up from her chair and flung herself at the tall, lean, and slightly disheveled figure in the doorway. "Jeff! Wow, you got here fast! And it's so good to see you." They were instantly in a mad whirling embrace around her cubicle.

Amy chose that moment to knock on the doorframe. "Hey, cool down, you two. I can hear you giggling all the way down the hall."

Jeff slowly put Janice down, sliding her body down his while staring intently at her. Finally her feet were on the floor, and she disengaged from him slightly. Still hugging him she turned to Amy and introduced them. "Jeff, meet Amy, the Pellet Researcher for this year."

Jeff looked blank. "Pleased I'm sure. What are pellets?"

Amy sneezed. "Barf balls. Birds that prey on small furry things cough up balls of fur and bones. I separate out the bones and identify them. We even find snake scales in 'em."

"Oh yeah, sure. I just couldn't connect for a moment." He collected himself. "It's the altitude, you know. My brains are at eight thousand feet. Besides, I was distracted."

Amy grinned. "OK, I get the hint. But when you're ready, I've found something about the chipmunks you should know."

Despite herself, Janice was intrigued. "Tell me quick, then we can talk about it later." She hugged Jeff. "Much later."

"Well, basically, this summer's big owl pellets have quite a few chipmunks in 'em."

Janice looked puzzled. "What's that mean?"

"There shouldn't be chipmunks in these pellets – they're diurnal animals. They're not active when the owls are out, so how can they be getting caught?"

"Something's funny."

"Not only that, but I checked the pellet results from past years – up until two years ago, only voles and mice, nice nocturnal animals, what you'd expect. No chipmunks."

"Well, either these are early owls, or the chipmunks stay up late."

"Exactly. And there are no reports of funny owls. So the chipmunks are changing their behavior."

#

Over the next week Janice and Jeff retrieved a variety of squashed and bloody carcasses from the paved roads between Mammoth Lakes and SNARL and transported them to the site of her encounter with the chipmunks, just north of the intersection of Hwy 203 and Hwy 395, on an old asphalt spur road within sight of the interstate. Her jeep began to smell like ripe flesh, and her gloves acquired unpleasant stains.

Thursday morning she dumped yet another squashed rabbit on the edge of the pavement. Then she retired to her jeep on the side of the road and waited, binoculars and notebook at the ready, for the chipmunks to respond in the now-familiar pattern. Jeff pulled out a book and stretched out in the back seat.

Within minutes there was a stirring in the low shrubs nearest the carcass. Two chipmunks she called the Lookouts emerged from the vegetation and approached the rabbit. They circled it cautiously, sniffing the air repeatedly and making low chittering noises. At some unseen signal they flashed quickly back into the shrubs. Next came the noise of high-pitched barking: not the continuous alarm signal common to chipmunks and squirrels, these were short bursts of sound repeated for about 10 minutes. This was followed by the appearance of at least a dozen chipmunks around the carcass. Finally came the feeding frenzy, enthusiastic yet curiously disciplined. Some animals tore out chunks and disappeared into the shrubs, to be replaced by others. In about an hour the rabbit was reduced to fascia-covered bones.

"Let's see Disney make a cartoon out of this. They could call it 'Bambi and Thumper Share a Roadkill,'" she remarked.

"Reminds me of stories about piranhas."

"Land piranhas? But they take living prey. These are more like furry vultures. At least so far."

"Oh? Care to explain?" He put his book down.

"OK. I think they're cooperating because that way they can compete with bigger scavengers like ravens and coyotes. These carcasses disappear so fast the other creatures never have a chance to find them."

"Why do chipmunks eat meat anyway? They're supposed to eat nuts and berries and stuff like that. They're not predators."

Janice sighed. "Deer, squirrels, mice, rabbits and other cute, furry critters are classified as plant eaters, herbivores. We've adopted the view fostered by cartoons and kids' books, that they only eat plant food. But actually, very few animals turn down the chance to eat meat even if they don't hunt."

"Why?"

"Well, for starters, meat is easier to digest than plant food. No tough fibers. Carnivores have much shorter, simpler digestive systems than herbivores. So it's a good source of energy and calories."

"So why haven't chipmunks everywhere realized this before?"

"Good question, especially from a mathematician. It has to do with the evolutionary pressure. It's pretty fierce up here."

Jeff looked blank.

"Look, this is a food-scarce environment. Dry all year and cold in the winter to boot. The pine forest where the chipmunks live is not very diverse — not a lot of different organisms, but many individuals of the few species that do thrive here. It's the classic pattern for a difficult environment."

"But there are 20 square miles of pine forest filled with pine nuts — how tough can that be for a chipmunk?"

Janice considered for a moment, pawed through some papers in the front seat. She tossed Jeff a greyish object.

"Look at this deer leg I found in the forest."

He turned the bone over and noticed that one end was jagged.

"Let's see...it has marks on it — looks like tooth marks. OK, it's been gnawed."

"Yup. Nothing lasts long on the forest floor. When an animal dies its body is quickly scavenged by the living. Even the bones are gnawed for their calcium. So anything the chipmunks can do to improve the food supply is going to be a big advantage for their survival."

"OK. I'm convinced. But I'm just a humble mathematician. How're you going to prove your idea to the Brantons of the world?"

"Well, I don't know yet, but I think I can predict what the next step is. It's the same kind of thing that happened to our own ancestors on the African savanna. We were originally scavengers, cleaning up after the big predators like lions."

"So much for the Great Hunter idea, eh?"

"It's not a very likely scenario for puny creatures like us without claws or fangs, or at that time, much technology. The point is, a coordinated band can scare or harass a large predator away from its kill."

"But our ancestors did start to hunt."

"They did at some point. Using the same pack behavior they developed for scavenging, they found they could take large living game. And the communication skills they needed for hunting led to human language."

"So the next step for the chipmunks is to talk?"

"No, silly." She bopped him lightly on the head with her clipboard. "Wolves and wild dogs don't talk, but they hunt in packs. So, I predict that the chipmunks are going to hunt living prey."

#

Janice swam up out of sleep with the comforting sensation of another body next to hers. Jeff was snuggled up against her, breathing deeply and surprisingly quietly, one arm draped over her breasts. She ran her hands lightly over his exposed shoulders and arms. He stirred, grunted contentedly and

opened his eyes. Then inhaled deeply and coughed. "Can't get used to the air up here — how can you breathe something you can't even see?"

"Smoghead. Look out there. It's a gorgeous day. Let me show you some scenery."

"What are we doing about breakfast?"

"There's a good place in Mammoth, then we can explore the forest behind the town."

As they drove out of the parking lot they passed Amy carrying a paper sack. She waved them down. "Hey, how'd you like to come out hooting with me tonight? I want to nail down if Owl #6 is a Great Grey. I found some pretty interesting looking feathers in its territory."

"Is that what you've got in the bag?" asked Janice.

She frowned. "No, unfortunately. These are the remains of Old Reliable, my owl from Doe Ridge. I found it lying under the tree where it leaves its pellets."

"How'd it die?"

"Can't tell, actually. The body was pretty well munched already — not much but feathers and a few bones left. Things sure don't last long on the forest floor around here. I checked the site just two days ago."

Janice turned to Jeff. "You have time to go hooting tonight? I'll bet you've never done it."

He suppressed a smile. "Sure, if it's a hoot, I'm interested."

They all groaned.

"OK, we're in."

"Great. I'll bring the hot chocolate. Meet here around 8:00 tonight and we'll head off."

#

Blondie's Kitchen was pleasantly full of t-shirted vacationers, but there was one unoccupied booth left. The smell of coffee permeated the air, sharpening Jan's hunger.

As they perused the menus, she became aware of an animated conversation behind her back in the adjoining booth.

"That's not English--what is it?" asked Jeff.

Jan listened for a few seconds. "French, but with a southern accent, not Parisian."

He stared at her. "Wow, I'm impressed. How did you do that?"

She looked up from the menu and smiled at him. Her frequent trips to Europe as a child had given her fluency in French and Italian and the ability to distinguish regional accents.

"Southern accents are the same all over. People speak more slowly and hang onto the ends of their words. In Australia their south is the north, but the same thing happens."

As she tuned in again on the conversation behind her, something about it caught her attention. She motioned Jeff to silence.

"Wait a minute, I want to hear this..." She turned her head to hear better and concentrated.

A man was talking, a long barrage spiked with exasperation and cries of disbelief from others. Jan listened for a few minutes. Finally there was loud laughter from the table behind.

She turned back to Jeff. "He was complaining about squirrels stealing food. A bunch of squirrels, *tout un tas*, he said. They apparently worked over his pack and he couldn't get them to stop. He was pretty upset about it, especially when his friends didn't take him seriously. He kept insisting that they were doing something unusual."

"Where did it happen?"

"Unfortunately, I missed that part, so it could have just been a campground. But there are campgrounds in France, so he should be used to pesky squirrels."

"These were squirrels, or chipmunks?"



"He called them squirrels. But I doubt he'd know the correct name for chipmunks anyway. Most people don't distinguish between the local rodents. They're all just generic squirrels. No, what's funny is that I was discussing this kind of incident with Amy just yesterday, and now it's happened."

"Maybe you have chipmunks on the brain. Here comes the waitress. Ready to order?"

#

After breakfast they headed out of town on the winding asphalt ribbon of the scenic loop. There were few other cars, in contrast to the busy interstate. The brilliant blue sky illuminated steep-sided hillsides thickly grown with tall stately fir trees.

Janice looked around as she drove. Not a menacing forest at all, in fact a rather straightforward one, she thought. Still, she couldn't help wondering if the placidity hid the secret rustlings of new activity. As if answering her thought, a ground squirrel erupted out of a roadside shrub and dashed across the road in front of them. She slowed the Jeep, but it was moving very fast and was in no danger of being hit.

"What was that — a greased chipmunk?" asked Jeff.

"I think it was a golden mantled ground squirrel. The head was orange, and it was a bit bigger."

"How could you tell? All I got was a glimpse."

"It was moving pretty fast. Last time I saw a squirrel run like that, there was a weasel behind it."

"Maybe the chipmunk mafia was after it." He grinned.

"Don't you start now."

She turned off onto a gravel forest service road and parked the jeep at the base of a hill. As they walked around the rocky apron of the hill they came to a wooden nest box mounted on a pine tree, one of many scattered throughout the forest. Earlier in the summer she and Amy had amused themselves by guessing what birds were using the boxes, gleaning information from an occasional dropped feather. But as they approached, Jan saw something was wrong. Nest material protruded from the entrance hole, and many feathers were strewn around the forest floor beneath it.

"Something must've raided this box," she said. "Look at the entrance hole — it's chewed all around."

"So what animal could do this? Don't they build these boxes so only birds can get in?"

"I thought so. I've never seen one messed up like this, and it must be a rare event or the Forest Service wouldn't bother putting boxes up."

"Seems to me it'd be easy for squirrels or chipmunks to get into one of these anytime they wanted."

Janice considered for a moment. "I always thought so too, and maybe that's the answer. They don't usually want to."

"But now they do? Your chipmunks again?"

She stared at him. "Well, maybe I'm just jumping to conclusions, but if they were starting to hunt, these would be the easiest prey. Here in the boxes, and in all the dead trees where the other birds nest." She shivered despite the warmth of the late morning sun.

#

Amy killed the headlights on the pickup truck as they reached the territory of Owl #6. The site was a clump of Jeffrey pines on a low rocky bluff overlooking a pumice flat and the interstate, about a quarter mile north of Hwy 203.

"So what's special about this owl?" asked Jeff.

"Well, basically, locating a Great Grey would burnish my credentials as a field biologist. It'd be a real find on this side of the mountains. They're pretty rare even in lush forests on the west side. I've put in a lot of hours trying to find this puppy. Maybe tonight's the night."

They unloaded the tape recorder, and Jeff slung it around his neck. It was a big bulky job, an ancient model from the lab.

"So you're not actually going to hoot?" asked Janice.

"Nah, my hoots have a Chinese accent, not 'furry' enough. Owls hate 'em. This way is better."

A flicker of movement caught Janice's eye. A darker shape was gliding noiselessly into the green-black branches of the pines on the edge of the bluff. She touched Amy on the shoulder and pointed.

"There it is. What luck!" Amy whispered.

They walked carefully over the fallen branches and pine cones to a small clearing close to where they had seen the owl.

Jeff set the recorder on the ground and Amy flicked it on. The throaty hoots of a Great Grey floated into the darkness. She repeated the sequence several times, but there was no answering call.

"Well, maybe it's just a Great Horned Owl after all."

She fumbled in the backpack for a small flashlight. "I've got horned owl hoots further along on the tape."

"Here, I've got one," said Janice. As she flicked the light on she heard soft rustling noises among the dry needles of the forest floor. Holding the light at eye level, she scanned around her. A few spider eyes gleamed back at her, and several sets of larger eyes. One set was close enough to discern the striped body behind the eyes. "Look, a chipmunk! Well, that proves they're out at night all right."

"And that's why my owls are catching them."

"Yeah, but what are they doing out?" asked Janice.

"What difference does it make? Snakes come out on summer nights, why not chipmunks?" asked Jeff.

"The snakes only do it because their body temperature is still warm enough to hunt. It's basic physiology for a cold blooded animal. And it's not something new," she explained.

"Right," put in Amy. "And remember, just a few years ago the owls weren't catching chipmunks."

"So they probably weren't out at night."

"The only other possible explanation was that a new species of owl with slightly different hours had moved in," sighed Amy. "I was counting on a Great Grey, but they almost always answer the tape if they hear it."

The tape recorder was still running and Great Horned owl hoots filled the air. In the recorded silence after the calls they heard again the soft rustling noises. The tape called again, but the owl stayed silent. The rustling sounds increased.

"No wonder those chipmunks get caught — they make a racket."

"I sure wish this one would hoot. Say, you guys, would you mind moving away from the tree? Take a walk or something? Maybe there are too many of us here."

Janice and Jeff moved away from the clearing, walking slowly back toward the truck, then past it down the dirt road and into the forest. A few minutes later, as they rounded the first bend, Janice suddenly stopped and put her hand on Jeff's arm. "Listen. The owl."

The sound of the live owl's answer floated lightly over the forest.

"It's in a higher pitch, but the song's the same," whispered Jeff.

"That's what it usually sounds like. Poor Amy, it's unmistakably a Great Horned Owl."

"Hoping to nail chipmunks, probably," said Jeff.

"Yeah. The Great Horned owls are top predators. Pretty ferocious hunters, the terror of the night to anything smaller. We enjoy the sound of the hooting, because they don't threaten us." She paused. "I wonder if the mice shiver when they hear it."

"Like we do at the scream of a cougar?"

"Or the snarl of a grizzly? Actually, besides the odd tiger attack in India, there are precious few large predators left to threaten humans. We've erased them, starting back about ten thousand years when we —"

They heard Amy curse and stamp her feet.

"What's she doing over there?" wondered Jeff. "I thought the idea was for us to be quiet."

"I don't know. Shhh."

The owl continued to call from the tree every few seconds in response to the tape. As they stood quietly in the darkness Janice slowly became aware of soft rustling sounds around them. She fumbled for her flashlight, but it slipped through her hands onto the duff. She reached down to pick it up, groping around with her hand.

From the darkness something furry leaped at her hand. Warm fur, sharp teeth. "Ow!" she yelled, and shook her attacker free while straightening up.

"What's the matter?"

Janice was nearly speechless with surprise. "It...bit me! It leaped on me and bit me!"

"What? Where?" Jeff was instantly all motion and concern.

"On my hand. Goddamn chipmunk bit me. It's absolutely incredible!"

Suddenly from the clearing they heard the sound of running feet, a crash, and Amy yelling.

"What's she saying?" asked Jeff.

"I'm not sure. It sounds like 'stop it.' We'd better get over there."

They retrieved the flashlight and half-ran back to the clearing, stumbling over pine cones and branches. The tape recorder was tipped over on its side.

"Amy? Where are you? What's happening?" yelled Janice.

A rustling commotion in the branches of a tree above them. She looked up. Scrambling noises on the trunk traced the descent of many small bodies.

"Lord, the tree must be full of them!"

From the direction of the owl tree came a strangled screech and sounds of thrashing. Amy was yelling "Stop it, stop it, stop it, you damn things!" In the distance they could see her flashlight playing in the branches of the tree, its stabs raking across shrouded vaults.

"The owl! They're attacking the owl," yelled Janice. They ran to join Amy. Suddenly she was filled with loathing for the swarming rodents.

They found Amy two branches up in the tree, flashlight clenched in her teeth, yelling wordlessly.

There was more commotion in the branches, sharp squeals and thrashings.

Then above her Jan heard something falling, thumping into branches and crashing to the ground on the far side of the tree. She guessed it was the owl, but it sounded too heavy. She had a sudden vision of a cadre of chipmunks attacking the owl as it sat helpless on the branch, the brief death struggle, the failed takeoff becoming a plunge taking both attackers and prey to their doom.

Above them, Amy yelled in pain and stopped climbing. She yelled again and her flashlight fell to the ground.

"Ahhh! I'm being attacked!"

A hastening, liquid sound — made up, Jan realized, of many excited squeals.

"They're swarming all over." Amy shrieked. "I'm coming down."

With a cry she fell from the tree, landing in a crumpled heap. They rushed over to her.

Jeff helped her up.

"Amy..." began Janice.

"Oh, my ankle. I must've landed wrong." Her terrified face stared up at them in the flashlight gleam. "D-damn things are all over the tree! One of them b-bit me on the shoulder. They're like in a frenzy or something."

The branches above them were alive with swift scurrying noises.

"Let's get out of here," said Janice. "This is bad news. Maybe these things are sick."

"No," said Jeff. "It's what you said. They've taken the next step. They're hunting."

"But why the owl?"

"It's payback time. Remember the mice shivering at the sound of the hooting?"

She stared at him. "I was only half serious about the hunting. But they're so intense."

"Wait, the owl...where is it?" gasped Amy. "Maybe it's still alive."

"Not a chance. Let's just get out of here," urged Janice.

"You two go for the truck, I'll look for the owl," said Jeff.

The two women struggled towards the truck, Amy leaning heavily on Janice. Several times they heard chipmunks moving in the duff around them.

Jeff caught up with them. He was carrying the tape recorder. "It's dead all right. In a heap with some mangled chipmunks. And a mess of live ones that wouldn't let me near it."

They scrambled into the truck.

"I'll never feel the same about the forest again," shuddered Amy.

"It'll never be the same again," said Janice. Her thoughts raced.

*There's a new predator loose in the wilds. We erased the big ones, hunted them down and thought we were safe. But evolution never sleeps. There was a niche to be filled, and it was filled from below, from the small creatures. It's happened before. When the dinosaurs died, the mammals that inherited the earth were descended from small nocturnal animals. Some people speculated that they may even have hastened the demise of the dinosaurs by eating their eggs. Maybe this is the beginning of the end of our brief hominid dominance.*

She looked back as Jeff started the engine. The dark forest was alive with tiny glaring dots. In the glow of the tail lights, a ring of bright eyes glittered.

*The wood is full of shining eyes,  
The wood is full of creeping feet,  
The wood is full of tiny cries.  
You must not go to the wood at night.*

-Henry Treece (1912-1956)