



High School for Environmental Studies

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Freshmen Project for HSES Incoming

Next year you will be enrolled in Environmental Seminar, a course required for all incoming freshmen. In this course you will learn about the Earth, how it functions as a system and how humans have impacted that system. In addition, skills that will help you succeed in high school will be stressed including organization, literacy, presentation and research skills.

As part of this class you must complete a summer assignment. Your summer assignment is due the SECOND day of school, **Monday, September 13, 2010**. It will be an important part of your introduction to Environmental Seminar and count towards your first semester grade. Take your time with this assignment and enjoy the process of completing it to the best of your ability.

There are **four** parts to this assignment:

Part 1: Reading

- Log on to the school website at <http://www.envirostudies.org>
- From the home page, click on the link for "Summer Assignment"
- When you open the link there will be this document and four readings with follow up questions.
- Please read each of the following stories:
 1. *Nacho Loco* - a short story by Gary Soto
 2. *All Revved Up about an Even Bigger Vehicle* - a column by Dave Barry
 3. *When Nature Comes Too Close* - an article by Anthony Brandt
 4. *A Young Environmentalist Speaks Out* - a speech by Severn Cullis-Suzuki

Part 2: Comprehension Questions

- To answer the **Comprehension Questions**, students should copy questions onto a new sheet of paper and answer the questions using **complete sentences**.

Part 3: Essay

- For the essay, students are to type a 1-page essay answering the question, "What Does the Environment Mean to Me?" Students should frame the essay by using their impressions and opinions from the reading assignments. They are also encouraged to use personal experiences.
- The essay should be in size 12 font, Times New Roman, single spaced, with 1-inch margins

Part 4: Collage

- The final part of the assignment will be a visual representation also answering the question "What Does the Environment Mean to Me?" Students may use pictures from magazines, newspapers, photos, the internet and other appropriate sources to make their collage. They may also wish to include drawings or other materials to show their views on the topic.
- The collage should be a minimum of 8.5" x 11" but could be as large as a standard sheet of poster board material.

Summer Project for HSES Incoming Freshmen: Comprehension Questions

PLEASE FIND ALL THE READINGS BELOW!

After completing the assigned readings, please answer the following questions USING COMPLETE SENTENCES. Please use a separate piece of paper and copy down the questions before beginning.

Nacho Loco

1. Why do Nacho and his brother Felipe become vegetarians?
2. What makes it difficult for Nacho to be a vegetarian?
3. Do you think Nacho will remain a vegetarian? Explain.
4. Do you think vegetarians are friendlier to the earth than meat-eaters?

All Revved Up

1. According to the author, why don't owners of sports utility vehicles drive them off-road as they were designed to be driven?
2. What does Barry say are the advantages and disadvantages of SUVs?
3. Why do you think SUVs are so popular?

When Nature Comes Too Close

1. What is causing the "overlap" of people and animals described in this article?
2. What are some of the problems caused by "backyard wildlife"?
3. What are some possible remedies?
4. Sum up the basic conflict presented in this article.

A Young Environmentalist Speaks Out

1. What does the speaker mean when she says she is fighting for her future?
2. Why does Severn think that being able to comfort children with phrases like “everything’s going to be alright” and “it’s not the end of the world” is so important?
3. What affect do you think the phrase “each of you is somebody’s child” has on the audience?
4. Where does Severn suggest we find the money to solve environmental problems?

Nacho Loco

GARY SOTO



One morning Ignacio "Nacho" Carrillo's fifth-grade teacher, Mrs. Wigert, brought the book *Fifty Simple Things Kids Can Do to Save the Earth* in to class. She talked about recycling cans and bottles, repairing leaky faucets, planting trees, doing away with Styrofoam, and snipping six-pack rings so birds wouldn't get their necks caught.

"Earth, after all, is our mother," Mrs. Wigert said, and one of the bad boys in the back rows replied, "Yo mamma!"

Mrs. Wigert shushed the boy, a finger to her lips. She scanned the class, asking for quiet. Then she announced, "I'm a vegetarian. Do you know what a vegetarian is?"

"It's when you don't like meat," said Desi, a fat boy whose *chones* could be seen when he ran.

"It's when you just eat grass," Leticia said.

"Not grass, Leticia—noodles," Robert corrected.

Mrs. Wigert smiled at these definitions. She said, "It's when you decide not to eat meat for the welfare of your body and the planet."

"I ain't on welfare!" Robert snickered.

The class laughed, and Mrs. Wigert frowned. She clapped the book closed and said that they would go on to math. As she stood up behind her desk, her stomach rumbled, making her sound very, very hungry.

But Nacho had listened to what she said. He knew what a vegetarian was because his brother, Felipe, had gone to college and come back with ideas that would solve the world's problems. His brother had decided not to buy anything at department stores and dressed in clothes from the

Salvation Army thrift store on Tulare Street.

"You're supposed to be educated," his father grumbled at his oldest son. "*¿Por qué te vistes en garras?* Why are you dressed in rags?"

"*Mi'jo*,¹ what will your *abuelita*² think?" his mother pleaded.

His father and mother had worked hard to send their son to college, and now, to their minds, he looked like a bum.

And Felipe was a vegetarian.

Yes, Nacho knew what a vegetarian was, and at that moment, as he opened his math book and licked his pencil preparing to do division, he decided to become one. Mrs. Wigert was right, he thought. We must save the planet in small ways.

Nacho left the classroom a committed vegetarian—or at least determined to become one after he ate his lunch, which was weighed down with a thick bologna sandwich. He liked bologna, especially when his mom also packed corn chips in his lunch. He would open his sandwich and methodically place nine corn chips to form a square, as if he were playing tick-tack-toe. Then he'd put it together, close his eyes, and take a big bite, the corn chips crunching in his ears.

And that's what his mother had packed in a paper bag today: a bologna sandwich and corn chips, along with a box of juice and a plastic bag of carrot sticks. Nacho looked at the carrot sticks and put them aside. Then he went to town on the sandwich.

Nacho ate with his friend, Juan, on a bench outside the cafeteria. Juan was one of the best baseball players at school and he could shoot hoop, fight, and keep up with the smartest girls in a spelling bee. He was everything Nacho was not. Nacho was a dreamer, quick to pick up on the most recent scientific fad. Once he read in the "Grab Bag" section of the newspaper that if you place a dull razor blade under a pyramid structure and point it south, the pyramid's energy will restore the sharpness of the blade. He tried it with his father's old blades and wrapped them up as a Christmas present. Unfortunately, the blades remained dull, and his poor father had ended up with nicks from his throat to his upper lip.

"I'm not eating meat after this," Nacho said. "It's bad for the world."

"What are you talking about?" Juan said. His cheeks were fat with bites from a tuna sandwich.

"I'm a vegetarian."

"A what?"

"A vegetarian. I'm a person who thinks of mankind. I won't eat meat anymore." Nacho bit into his juicy bologna sandwich, savoring the taste, eyes closed.

"But you're eating meat now, ain't you?" Juan asked.

"This is the last time," Nacho said, wiping his mouth on the paper bag. His mother had forgotten to pack him a napkin.

"That's weird," Juan said. "Won't you get sick if you don't eat meat?"

"Mrs. Wigert is a vegetarian," Nacho commented.

"She's already grown," Juan said. "Anyways, I like hamburgers."

Nacho saw in his mind's eye a hamburger wrapped in a greasy wrapper and finger-sized french fries steaming on a white plate. He shook the images off and eyed his carrot sticks. He took one out from the sandwich bag and held it in his lips like a cigarette.

"And I don't smoke either," he said, laughing.

After lunch they played baseball, but their game ended when Juan hit the ball onto the roof of a building. Nacho had batted only once, hitting a feeble grounder back to the pitcher.

After school Nacho and Juan walked home together. Both of them were hungry so they stopped at the corner grocery store. Juan scraped up enough money in the corners of his pockets to buy a Hostess cupcake. Nacho bought a package of beef jerky, using the money he got from recycling aluminum cans on Saturday.

"I thought you were a vegetarian," Juan said as they left the store. He tore off the Hostess cupcake wrapper and threw it absentmindedly on the ground.

Nacho's mouth fell open in shock. He stopped in his tracks and confessed, "I am, but I forgot." He looked at the beef jerky; the little chunks reminded him of scabs. But since he had already paid for the beef jerky, he reasoned that it was worse to throw away food than to eat it. He was sure vegetarians would never throw anything away. They would always eat everything on their plates or, in this case, in their packages.

Juan's cellophane scuttled in a light breeze, and Nacho picked it up.

"I'll trade you then," Juan said.

Nacho bit his lip because at the moment he preferred salt to sugar. Reluctantly he handed over his beef jerky. He took Juan's cupcake and stuffed it in his mouth; its chewy sweetness dissolved in three bites. For the rest of the walk home he had to watch Juan tear off pieces of jerky and chew slowly, the smoky juice dripping from his mouth.

¹ *mi'jo*: Spanish for "my son"

² *abuelita*: Spanish for "little grandmother"

Nacho's mother was in the kitchen when he arrived home. The radio was tuned in to Mexican news—a bus had gone off a cliff in Monterrey.

"Hi, Mom," he greeted her, throwing his books on the kitchen table.

"How was your day, *mi hombrecito*?"³ she asked. She looked up from whacking a round steak with her favorite black-handled kitchen knife. Nacho looked at the round steak, then at the puddle of blood leaking from the meat, and announced, "Mom, I'm a vegetarian."

"¿Qué?"⁴ she asked. She turned over the steak and started pounding the other side.

"I'm a vegetarian. I don't eat meat anymore."

His mother stopped pounding the steak and wiped her brow with the back of her hand. "Son, don't tell me you're like Felipe."

"Mom, meat is bad for you."

"Meat is good for you. It'll make you *más fuerte*."⁵ She made a muscle in her right upper arm.

"Scientists have done studies, Mom. They say our teeth are supposed to eat only vegetables."

"Ay, Dios,"⁶ where did we go wrong!" she cried, her chopping hand waving the kitchen knife.

"Mom, it's for the welfare of our bodies and mankind."

"*Estás chiflado*,"⁷ just like your brother," she groaned. "And you didn't even go to college." She pounded the steak furiously and mumbled under her breath that when she had been a girl in Mexico, she'd been lucky to eat meat. At the start of a lecture about the old days in Michoacán, when his mother had been the daughter of a poor florist and weekend harpist who plucked his life away at a restaurant, Nacho tiptoed out of the kitchen. He went to his bedroom, which he shared with his little brother, Isaac.

Isaac was watching TV on a small black-and-white set they'd gotten from an uncle who'd needed ten bucks for gas.

"TV's bad for you," Nacho said.

Isaac took his eyes off the television for a second and said, "So?"

"I'm just saying, it's bad. Go ahead and do what you want. I'm a vegetarian." But the television caught Nacho's attention. There was a Burger King commercial of a guy jamming a double patty into a hungry grin.

3 *mi hombrecito*: Spanish for "my little man"

4 *¿Qué?*: Spanish for "What?"

5 *más fuerte*: Spanish for "very strong"

6 *Ay, Dios*: Spanish for "Oh, God"

7 *Estás chiflado*: Spanish for "You are crazy"

Nacho's mouth began to water.

He went outside and played slapball against the garage door. But each time he missed, or the ball ricocheted away from him, he would run past an old cardboard pizza box that had been left on the redwood table under the patio. Nacho remembered that pizza. His father had been promoted to foreman at Valley Irrigation. He and Nacho's mother had gone out to celebrate with their *compa*⁸ and brought back spicy pepperoni pizza for the kids.

Nacho played slapball until his father came home, and then the two of them shot hoop. They played a quick game to twelve, one point per basket. His father was big around the middle but a sweet outside shooter.

"You're just a little *piojo*,"⁹ but you'll grow," his father said, wiping his face with the sleeve of his work shirt. He sat on the back steps. His chest was heaving, and the lines on his throat glistened with sweat.

"Dad," Nacho said, "I think I might be a vegetarian."

"¿Qué dices?"¹⁰ his father asked, his face still.

"Today we had a talk about the world. Mrs. Wigert said eating meat is bad for you."

"So?"

"So, I'm a vegetarian. I don't eat meat anymore."

"¿Qué hacen a mi familia?"¹¹ First your brother and now you?" His father got up and turned on the garden hose. He drank long and hard from it. He patted his belly and then agreed, "OK, you be a vegetaran . . ."

"Vegetarian," Nacho said.

"Yes, but you'll be such a *flaco*,"¹² we won't know where you are," he said playfully "Not like this." He smacked his belly and laughed.

His father went inside, leaving Nacho on the back steps staring at the empty pizza box. When he finally went inside, his older brother, Felipe, was in the kitchen, lowering a piece of *carne asada*—marinated round steak—into his mouth.

"Hey, Felipe," Nacho said, his stomach suddenly grumbling from emptiness.

"Hey, you little Nacho-head," Felipe said to his brother. "Give me five."

8 *compa*: Spanish for "group of friends"

9 *piojo*: Spanish for "louse"

10 *¿Qué dices?*: Spanish for "what did you say?"

11 *¿Qué hacen a mi familia?*: Spanish for "What is happening to my family?"

12 *flaco*: Spanish for "skinny person"

They slapped each other's hands. Then Nacho said, "I thought you were a vegetarian."

"Not anymore. My girlfriend left me."

"What?"

"Yeah, she moved on to greener pastures. A lawyer. I guess she doesn't like accountants."

"You mean you were a vegetarian because of your girlfriend?" Nacho was shocked. He turned on the faucet in the kitchen and washed his hands.

"Sort of. But I have a new girlfriend. She likes good food and bad movies."

"But I thought you had principles!"

"I do. But I got a new girlfriend."

Nacho felt cheated. He wanted to tell Felipe that he had become a vegetarian, but he kept quiet.

From the dining room their father called, "*Hombres*,¹³ let's eat."

"Chow time," Felipe said.

Felipe sat down, a napkin crushed in one hand and a fork shining in the other. After a prayer of thanks, during which he kept his eyes open looking at the meat, Felipe dove into the *carne asada*. He ate like a barbarian, ripping a tortilla and pinching up smudges of *frijoles*.¹⁴

"See, if you were living at home you would be eating good," his mother said as she passed him another tortilla from the basket.

"Claro,"¹⁵ he said.

Nacho sat in front of his plate of rice and beans. He took a forkful of beans, eyeing his brother's plate, which was loaded with steaming meat. He looked at his little brother's face, his mother's face, and his father's dark and stubbled face: they were all enjoying meat. They were barbarian meat-eaters.

Later Nacho helped do the dishes. He rinsed while his mother washed, and he kept turning around and looking at the stove; the pan of meat still rested on one of the burners. His mouth watered.

After the dishes were done, the family sat and watched a sitcom on television. Nacho didn't care about the program, except when one of the actors lifted a fork or wiped his mouth on a cloth napkin. But he zeroed

¹³ *Hombres*: Spanish for "men"

¹⁴ *frijoles*: Spanish for "beans"

¹⁵ *Claro*: Spanish for "clear," here it means "true" or "right"

in on the Denny's commercial and its parade of fried chicken, burgers, club sandwiches, bacon and eggs, and milk shakes. While they watched television, Nacho's father told his son Felipe that he was proud of him.

"You went all the way," he said. "In a few years it will be Nacho's turn. Already he has big ideas, like being a . . . *cómo*?"¹⁶

"A vegetarian," Nacho's mother said. She had changed the channel to *las noticias*, the evening news.

"Yes, a human who doesn't eat meat," his father said. "How he will grow, *no sé*."¹⁷

"That's cool," Felipe said to Nacho. "Start young. What grade are you in?"

"Fifth," Nacho said, staring at a commercial for Pioneer Chicken.

"Yeah, go to State. I'll tell you about financial aid."

"Yes, ask about money. This ol' burro won't last," his father said, pointing to himself and braying like a donkey. "Ask your teacher *también*."¹⁸

Nacho heard some of their chatter, but his eyes were locked on the screen. A bucket of chicken was being devoured by a family of five, just like their family. Nacho's mouth flooded with the waters of hunger, and he had to leave the living room to eat a cracker.

Nacho went to bed hungry but determined not to ruin the planet. He lay awake, thinking about food, and when he closed his eyes, he saw a floating chicken drumstick.

But as he moved toward sleep he told himself that he should get serious. The next day he was going to ask Mrs. Wigert about college—financial aid, majors, and easy courses. And in privacy, away from Juan and the others, he was going to ask point-blank: how can you live without meat? ☺

¹⁶ *¿cómo?*: Spanish for "what?"

¹⁷ *no sé*: Spanish for "I don't know"

¹⁸ *también*: Spanish for "also"

All Revved Up About an Even Bigger Vehicle

DAVE BARRY

If there's one thing this nation needs, it's bigger cars. That's why I'm excited that Ford is coming out with a new mound o' metal that will offer consumers even more total road-squatting mass than the current leader in the humongous-car category, the popular Chevrolet Suburban Subdivision, the first passenger automobile designed to be, right off the assembly line, visible from the Moon.

I don't know what the new Ford will be called. Probably something like the "Ford Untamed Wilderness Adventure." In the TV commercials, it will be shown splashing through rivers, charging up rocky mountain-sides, swinging on vines, diving off cliffs, racing through the surf and fighting giant sharks hundreds of feet beneath the ocean surface—all the daredevil things that cars do in Sport Utility Vehicle Commercial World, where nobody ever drives on an actual road. In fact, the interstate highways in Sport Utility Vehicle Commercial World, having been abandoned by humans, are teeming with deer, squirrels, birds and other wildlife that have fled from the forest to avoid being run over by nature-seekers in multi-ton vehicles barreling through the underbrush at 50 miles per hour.

In the real world, of course, nobody drives Sport Utility Vehicles in the forest, because when you have paid upward of \$40,000 for a transportation investment, the last thing you want is squirrels pooping on it. No, if you want a practical "off-road" vehicle, you get yourself a 1973 American Motors Gremlin, which combines the advantage of not being worth



worrying about with the advantage of being so ugly that poisonous snakes flee from it in terror.

In the real world, what people mainly do with their Sport Utility Vehicles, as far as I can tell, is try to maneuver them into and out of parking spaces. I base this statement on my local supermarket, where many of the upscale patrons drive Chevrolet Subdivisions. I've noticed that these people often purchase just a couple of items—maybe a bottle of diet water and a two-ounce package of low-fat dried carrot shreds—which they put into the back of their Subdivisions, which have approximately the same cargo capacity, in cubic feet, as Finland. This means there is plenty of room left over back there in case, on the way home, these people decide to pick up something else, such as a herd of bison.

Then comes the scary part: getting the Subdivision out of the parking space. This is a challenge, because the driver apparently cannot, while sitting in the driver's seat, see all the way to either end of the vehicle. I drive a compact car, and on a number of occasions I have found myself

trapped behind a Subdivision backing directly toward me, its massive metal butt looming high over my head, making me feel like a Tokyo pedestrian looking up at Godzilla.

I've tried honking my horn, but the Subdivision drivers can't hear me, because they're always talking on cellular phones the size of Chiclets. ("The Bigger Your Car, the Smaller Your Phone," that is their motto.) I don't know whom they're talking to. Maybe they're negotiating with their bison suppliers. Or maybe they're trying to contact somebody in the same area code as the rear ends of their cars, so they can find out what's going on back there. All I know is, I'm thinking of carrying marine flares, so I can fire them into the air as a warning to Subdivision drivers that they're about to run me over. Although frankly, I'm not sure they'd care if they did. A big reason why they bought a Sport Utility Vehicle is "safety," in the sense of, "you, personally, will be safe, although every now and then you may have to clean the remains of other motorists out of your wheel wells."

Anyway, now we have the new Ford, which will be *even larger* than the Subdivision, which I imagine means it will have separate decks for the various classes of passengers, and possibly, way up in front by the hood ornament, Leonardo DiCaprio showing Kate Winslet how to fly. I can't wait until one of these babies wheels into my supermarket parking lot. Other motorists and pedestrians will try to flee in terror, but they'll be sucked in by the Ford's powerful gravitational field and become stuck to its massive sides like so many refrigerator magnets. They won't be noticed, however, by the Ford's driver, who will be busy whacking at the side of his or her head, trying to dislodge his or her new cell phone, which is the size of a single grain of rice and has fallen deep into his or her ear canal.

And it will not stop there. This is America, darn it, and Chevrolet is not about to just sit by and watch Ford walk away with the coveted title of Least Sane Motor Vehicle. No, cars will keep getting bigger: I see a time, not too far from now, when upscale suburbanites will haul their overdue movies back to the video-rental store in full-size, 18-wheel tractor-trailers with names like "The Vagabond." It will be a proud time for all Americans, a time for us to cheer for our country. We should cheer loud, because we'll be hard to hear, inside the wheel wells. ∞

When Nature Comes Too Close

ANTHONY BRANDT

The quiet village of North Haven, N.Y., occupies a 2.5-square-mile peninsula connected to the South Fork of Long Island¹ by a spit of sand. The houses of its 733 residents are scattered about a landscape of meadows, ponds and oak forests. If you drive through North Haven quickly, you might never see a deer. And you might never know this is the hottest spot in what is rapidly becoming the war of the suburbs—the war between humans and wildlife.

Drive slowly through the village's back roads and you will see white-tailed deer in abundance, walking through the woods, feeding in people's yards. In an hour and a half I counted 30 deer. They did not startle at the sound of my car; sometimes they didn't even look up.

The deer population has been costly to North Haven's environment. In the woods the understory has disappeared; nothing grows below five feet off the ground. Small mammals and ground-nesting birds have vanished, their habitat destroyed. The woods cannot replenish themselves because the deer eat all the saplings. Three-fourths of the residents have had damage to their ornamental plantings; others have built eight-foot fences around their property. Mayor Bob Ratcliffe believes North Haven's ecosystem could handle about 60 deer. In the fall of 1996, the number stood at more than 600.

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¹ South Fork of Long Island: the southern part of an island in southeast New York

Even more important: deer carry ticks (as many as 100 on each ear) that can transmit Lyme disease to people. The symptoms can include fatigue, a rash, fever, and muscle and joint pain. If not treated early, the disease can severely damage the central nervous system.

Ratcliffe would like the state to haul the deer someplace else. But where? Deer are thriving in suburbs all across the country; some wildlife biologists say the United States has as many as 20 million. Lyme disease cases run to more than 16,000 a year nationwide. There are hundreds of thousands of car-deer collisions every year, costing more than \$70 million in damage.

It's not just deer, either. The situation in North Haven is indicative of a growing nationwide problem: the spread of wildlife into human habitats and vice versa. This is happening for a host of reasons, including population growth, changing hunting laws, a dearth of natural predators and shifting attitudes toward nature. "Animal populations are recovering strongly, and the suburbs are spreading into what was animal habitat," says Cornell University wildlife researcher Jody Enck. "It's likely to continue." While not yet a national crisis, in many areas it looks to become one as the local wildlife bring damage, disease and even danger to our own back yards.

Every animal carries its own set of problems. Canada geese, which defecate as frequently as every eight minutes, are fouling golf courses, parks and lawns all over the East and Midwest. Beavers are flooding roads and basements in New York, Minnesota and New England, causing thousands of dollars in damage. Raccoons spread rabies, and they love suburban living.

The larger animals, however, present the biggest threats. Mountain lions are appearing with increasing frequency in California suburbs, where one wandered into a shopping center; others were seen on school grounds. A mountain lion was also spotted near Minneapolis. The animals may even be returning to the Northeast, with sightings reported as far south as Connecticut.

Moose are expanding their range from northern New England south. In 1996 one appeared in the Delaware Water Gap on the Pennsylvania-New Jersey line. They can be major road hazards, as cars do not intimidate them. When your car strikes a moose, it sweeps the legs out from under the animal, resulting in 1000 pounds of meat and bone coming through the windshield into your lap. In northern New England the

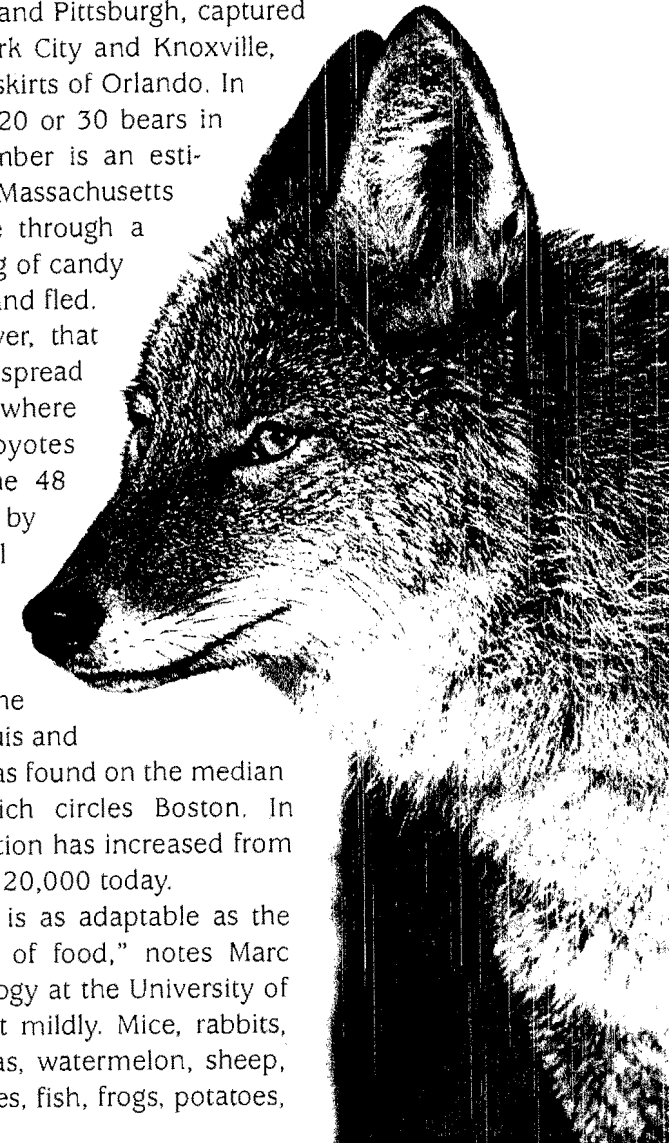
human-fatality rate in such collisions is about 25 times higher than in car-deer collisions.

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Bear proliferation, meanwhile, has taken place all across the country. In 1995 a black bear attacked a 14-year-old girl in her back yard in Monroe, Wash. Wisconsin wildlife agents handled 1000 calls in 1996 complaining about black bears. Bears have been sighted inside the city limits of Chattanooga and Pittsburgh, captured in the suburbs of New York City and Knoxville, and discovered on the outskirts of Orlando. In 1971 there were perhaps 20 or 30 bears in New Jersey; now the number is an estimated 550. In a western Massachusetts town, a black bear came through a screen door, grabbed a bag of candy bars off the kitchen table and fled.

It is the coyote, however, that constitutes the most widespread challenge to our ideas of where wildlife should live. Coyotes roam in every one of the 48 contiguous states and are by no means confined to rural areas. They have been seen in resort communities on barrier islands off the Atlantic Coast, and in the suburbs of Chicago, St. Louis and New York. A coyote den was found on the median strip of Route 128, which circles Boston. In Indiana the coyote population has increased from 500 in 1970 to more than 20,000 today.

No predatory mammal is as adaptable as the coyote. "It eats all types of food," notes Marc Bekoff, a professor of biology at the University of Colorado. That's putting it mildly. Mice, rabbits, birds, snakes, bats, iguanas, watermelon, sheep, goats, belts and belt buckles, fish, frogs, potatoes,



berries—all have been found in coyote stomachs. What they consume depends on where they are. In the suburbs they eat garbage; the dumpster is one of their favorite sources. They also eat pets. Over an 18-month period in Benbrook, Texas, more than 50 cats disappeared, apparently killed by coyotes.

They are very hard to control. In the West, coyote eradication through bounties, poisoning and hunting has been unsuccessful. “They’re very intelligent, very educable,” says Robert Chambers, retired professor of wildlife biology at the State University of New York College of Environmental Science and Forestry. They’re also difficult to trap, and more so the older and wilier they become.

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Few of us are easy in our conscience about this situation. Who does not admire the grace of the deer? The street smarts of the coyote?

But a black bear in our garbage can? Coyotes feeding on our beloved dog, Jack? That’s a different story. Wild animals are supposed to be wild; they’re supposed to keep their distance. They don’t belong in our backyard. The very notion violates our ideas about the boundaries between the domestic and the wild.

No one has any easy answers. Michael Conover, director of the Berryman Institute at Utah State University, wonders, “How can we create a world that has the wildlife we all love and cherish, yet solve these specific problems with animals?” Conover is trying to find solutions without resorting to large-scale slaughter. “It’s much better to solve the problem by changing the animals’ behavior,” he said.

When the deer problem became acute in North Haven, the community considered contraception, but the costs proved prohibitive. “The contraceptive is a vaccine derived from pig ovaries, and it must be administered by dart gun,” explains Cornell University wildlife biologist Paul Curtis. “Each free-ranging deer must be tagged as a warning, to prevent human consumption of the vaccine. Just to capture and mark the animal is \$200 per deer. Two doses of the vaccine per deer per year are necessary.” In North Haven the cost would have been tens of thousands of dollars every year.

“We’ve had this huge investment in studying deer, geese and other animals from the extractive² perspective,” says John Hadidian, who

² extractive: removed but not replaced



directs the Urban Wildlife Protection Program of the Humane Society of the United States. “Now we need a whole new science to understand what the problems are in the suburbs—and to figure out what to do.” Until then, he says, we have to learn to be more tolerant of local wildlife.

Meanwhile, we are finding that nature isn’t just “out there” any longer, somewhere in Montana or the Amazon rain forest. It is staring at us with big, hungry eyes, right where our azaleas³ used to be. ∞

³ azaleas: ornamental bushes



A Young Environmentalist Speaks Out

SEVERN CULLIS-SUZUKI

Hello, I'm Severn Suzuki. . . .

Coming up here today, I have no hidden agenda. I am fighting for my future. Losing my future is not like losing an election or a few points on the stock market. . . .

I am afraid to go out in the sun now because of the holes in the ozone. I am afraid to breathe the air because I don't know what chemicals are in it. I used to go fishing in Vancouver¹ with my dad until just a few years ago we found the fish full of cancers. And now we hear about animals and plants becoming extinct every day—vanishing forever.

In my life, I have dreamed of seeing the great herds of wild animals, jungles and rainforests full of birds and butterflies, but now I wonder if they will even exist for my children to see. Did you have to worry about these little things when you were my age?

All this is happening before our eyes and yet we act as if we have all the time we want and all the solutions. I'm only a child and I don't have all the solutions, but I want you to realize, neither do you!

You don't know how to fix the holes in our ozone layer.

You don't know how to bring salmon back up a dead stream.

You don't know how to bring back an animal now extinct.

¹ Vancouver: city in the Canadian province of British Columbia

And you can't bring back the forests that once grew where there is now desert.

If you don't know how to fix it, please stop breaking it!

Here you may be delegates of your governments, businesspeople, organizers, reporters, or politicians. But really you are mothers and fathers, sisters and brothers, aunts and uncles. And each of you is somebody's child. . . .

Two days ago here in Brazil, we were shocked when we spent some time with some children living on the streets. . . .

I can't stop thinking that these children are my own age, and that it makes a tremendous difference where you are born. I could be one of those children living in the *favellas*² of Rio. I could be a child starving in Somalia, a victim of war in the Middle East or a beggar in India.

I'm only a child yet I know if all the money spent on *war* was spent on ending poverty and finding environmental answers, what a wonderful place this Earth would be.

At school, even in kindergarten, you teach us to behave in the world. You teach us:

not to fight with others
to work things out
to respect others
to clean up our mess
not to hurt other creatures
to share, not to be greedy.

Then why do you go out and do the things you tell us not to do?

Parents should be able to comfort their children by saying, "Everything's going to be all right"; "We're doing the best we can" and "It's not the end of the world." But I don't think you can say that to us anymore. Are we even on your list of priorities?

My dad always says, "You are what you do, not what you say."

Well, what you do makes me cry at night.

You grown-ups say you love us. I challenge you, *please*, make your actions reflect your words.

Thank you for listening. ♡

The Mushroom

H. M. HOOVER

In A.D. 450 a squirrel could travel from the east coast of North America to the Mississippi without ever leaving the trees.

That year a squirrel, while grooming, brushed several million mushroom spores from its fur.

So small that a hundred million could fit into a teaspoon, the spores floated. Some rose up into the atmosphere; some were carried around the world by the jet stream.¹ Most drifted to the forest floor.

There was a massive, rolling earthquake, followed by electrical storms. Rain fell lightly, steadily, for days.

From two of these spores a new mushroom began to grow. It sent out microscopic filaments,² called hyphae, to penetrate and feed on forest debris. A sheath of a thousand hyphae is no thicker than a human hair.

The hyphae secreted enzymes to break down complex carbohydrates into sugars on which the mushroom fed. Needing protein for a balanced diet, the fungi filaments hunted, entrapping and digesting amoebas, bacteria, and tiny worms.

Within months miles of hyphae twisted through the forest floor. The fungi fruited, producing a new mushroom.

A chipmunk and several beetles ate most of the mushroom, scattering spores. Soon a ring-shaped colony of mushrooms marked the spot where the parent once stood.

1 **jet stream:** a current of high-speed winds high in the earth's atmosphere

2 **filaments:** very thin threads

2 **favellas:** Portuguese for settlements of shacks on the outskirts of a city