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Tigers, Humans, and Snails

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The Sound of a Wild Snail Eating
by Elizabeth Tova Bailey
Algonquin Books of Chapel Hill, 190 pp., $18.95

The Tiger: A True Story of Vengeance and Survival
by John Vaillant
Knopf, 329 pp., $26.95

John Goodrich

Liuty, a male tiger whose name, according to John Vaillant in The Tiger*, is 'an efficient word combining vicious, ferocious, cold-blooded, and bold,' at a Siberian wildlife rehabilitation center run by the tiger catcher Vladimir Kruglov*

Whether birdsong at dawn or just a weed in a sidewalk, nature is all around us. Yet all too frequently we only appreciate it when it's out of reach. For Elizabeth Tova Bailey, it was a mysterious disease that separated her from the natural world. But then a friend brought some violets in a flowerpot, into which she had placed a snail, and with that small gift came a deep reconnection with life, and a slow healing.

At the age of thirty-four, while on holiday in a small town in the European Alps, Bailey began to feel that something was wrong with her body. Time became strange, and she had a tendency to feel lost and confused. Within a few weeks of returning to New England, she says, she spiraled into “a deep darkness, falling farther and farther away until I am impossibly distant. I cannot come back up; I cannot reach my body.” Doctors cannot put a name to her ailment, and soon she finds herself lying, almost entirely incapacitated, in a hospital ward, “flooded with storms of thought, unspeakable sadness, and intolerable loss.” Things seem so out of control that she fears even to sleep, in case her slender grasp on life should slip entirely away. The disease played her as a cat does a mouse, over years plunging her into helplessness, then letting her crawl slowly out, before again driving her down.

It was during a period of convalescence in a studio apartment in early spring that a friend brought her the flowerpot. Unable even to rise from her bed, Bailey seems to have been annoyed by the gift. But then, around dinnertime, she noticed the snail gliding slowly down the pot, exploring its new world. Its slow, fluid movement mesmerized her—perhaps because she herself was forced to live at a snail’s pace.

Bailey expected the snail to wander off in the night, but the next morning she spied it, neatly tucked up in its shell under the violets. Then she noticed a square hole in an envelope that had been placed near the pot:

> This was baffling. How could a hole—a *square* hole—appear in an envelope overnight? Then I thought of the snail and its evening activity. The snail was clearly nocturnal. It must have some kind of teeth, and it wasn’t shy about using them.

Thinking that the snail might like something more than paper to eat, she took a few long-gone flowers from a vase in her sick room and placed them in the dish beneath the pot. That evening, the snail made its way to them and “investigated the offering with great interest.” Then,

> a petal started to disappear at a barely discernible rate. I listened carefully. I could *hear* it eating. The sound was of someone very small munching celery continuously. I watched, transfixed, as over the course of an hour the snail meticulously ate an entire purple petal for dinner.

The convalescent room was entirely white, and though it had a window Bailey could not sit up to see out of it. While she was trapped inside a stark white box, the snail became not only a focus of attention but a friend. For weeks it lived happily in the flowerpot, descending each night to eat withered flowers, and often, when she awoke in the stillness of an interminable night, Bailey could hear it munching.

The snail liked it when the violets were watered, waving its tentacles in apparent delight as it descended to the saucer to drink. But it had dislikes too, and was particularly displeased when new

soil was added to its pot. This it refused to touch, progressing to the pot's rim by way of a conveniently placed violet leaf. When the sandy soil was replaced with humus from the woods, however, the snail once again took to sleeping under the violets, and making its way over the soil.

As time went by the snail became more adventurous. It climbed down the crate its pot stood on and ate the label off a vitamin bottle. It even nibbled at the letters stamped on the crate in india ink. Bailey felt that "the snail and I were both living in altered landscapes not of our choosing; I figured we shared a sense of loss and displacement." But there was more to the relationship than that:

> By day, the strangeness of my situation was sharpest: I was bed-bound at a time my friends and peers were moving forward in their careers and raising families. Yet the snail's daytime sleeping habits gave me a fresh perspective; I was not the only one resting away the days.

Bailey found that watching the snail's purposeful nocturnal explorations calmed her often frantic and frustrated mind. "With its mysterious, fluid movement, the snail was the quintessential tai chi master," she writes.

Eventually a terrarium was obtained for the snail, and in this larger world the creature began to display astonishing abilities. It moved over the tips of mosses without bending them in a way that seemed to defy the laws of physics, and so impeccable was its balance that it could perch on the rim of a mussel shell as surely as if it were glued to it. Several times she caught the snail grooming itself. Although unable to hold a book or read, Bailey found observing the snail effortless—and endlessly fascinating.

As she began to recover, Bailey read extensively about snails, discovering that they possess a sword-like tongue with around 2,640 teeth. Their tentacles, she learned, have eyes at their tips and are expressive of mood, either drooping with dismay or becoming turgid with alertness. The Chinese characters for "snail" read as "slime cow"—and slime, as Bailey writes, "is the sticky essence of a gastropod's soul." When a snail wants to move it secretes "pedal mucous," which the ripple of its foot muscle momentarily transforms from solid to liquid, so aiding its progress. So adherent is the substance that the nineteenth-century naturalist E. Sandford showed that a snail can hoist fifty-one times its own weight up a window blind using its pedal mucous. But pedal mucous is just one of many kinds of slime snails produce. If harmed, snails can even secrete a medicinal slime that will protect them from infection.

Seized, perhaps, with the spirit of the nineteenth-century experimental naturalists, Bailey decided to feed her snail a special treat of cornstarch and cornmeal:

> It was a big mistake: the snail over-ate. It climbed in a staggering sort of way to the top of the terrarium. Clearly suffering from a severe case of indigestion, it stayed there for hours, excreting wastes from all orifices.

> I was terribly worried. If the snail didn't recover from cornstarch indulgence, then how, I wondered selfishly, could I survive my illness without the snail for a companion?

Surprisingly, there is ample evidence of intelligence among snails, and even some indications of social feelings. In *The Descent of Man*, Charles Darwin wrote of a

> pair of land-snails…one of which was [observed to be] weakly, [placed by a Mr. Lonsdale] into a small and ill-provided garden. After a short time the strong and healthy individual disappeared, and was traced by its track of slime over a wall into an adjoining well-stocked garden. Mr. Lonsdale concluded that it had deserted its sickly mate; but, after an absence of twenty-four hours, it returned, and apparently communicated the result of its successful exploration, for both then started along the same track and disappeared over the wall.

No less than the US Department of Agriculture warns that snails have been known to work together to escape their shipping crate while en route to a restaurant. As Bailey puts it, "With one purpose in mind, they join forces, push up with their muscular heads against the top of the crate, and pop the lid right off, gliding slowly but steadily toward freedom."

One morning Bailey looked into her terrarium and saw eight tiny eggs, which set her wondering how her snail had conceived. According to the nineteenth-century American zoologist Louis Agassiz, the snail is "a very model lover" that "will spend hours…paying attentions the most assiduous to the object of [its] affections." But there is a sting in the tail of snail romance, for as explained by another nineteenth-century observer, the courtship of snails "realises the Pagan fable of Cupid's arrows, for, previous to their union, each snail throws a winged dart or arrow at its partner." These *spicula amoris*, as the love-darts of snails are known, are unique in the animal kingdom, and can be extraordinarily beautiful. Formed of calcium carbonate, they can be one third the length of the snail's shell, and sport four fin-like blades and a harpoon-sharp tip. They are, technically speaking, not necessary for mating, and not all snails have them, but it's thought that they contain a special slime that improves the longevity of sperm.

All snails are hermaphrodites. In some species, both individuals play both parts, while in others they must decide whether to be boy or girl. If both want to be male, or both female, conflict may arise. Once fertilized, a snail can carry sperm around for years, and if isolated it can also self-fertilize, explaining how Bailey's solitary snail managed to give birth.

Some days after laying its eight eggs, the snail vanished. Bailey searched as widely as she could for it, and as the hours passed she realized that she was "almost more attached to the snail than to my own tenuous life." But then a friend visited and located it in the terrarium, under a patch of moss—along with around 150 eggs.

Bailey's health was by now slowly improving, and she longed to return home. In preparation, she had the friend who had brought her the snail release it where she had first found it, along with its offspring. But she did take one tiny baby snail, which she kept in a huge, antique glass bowl. But something had changed: "Watching a snail began to take patience. I wondered at what point in my convalescence I might leave the snail's world behind."

Years later Bailey discovered that she was suffering from a disease of the mitochondria—the tiny organelles that power our cells—which she may have acquired as a result of viral infection. She also learned the identity of her snail: it was a white-lipped forest snail, *Neohelix albolabris*, which is native to the eastern woodlands of North America, from Georgia to Quebec.

Like Bailey, Charles Darwin was afflicted, for much of his adult life, with a mystery ailment (now tentatively diagnosed as Chagas disease). Did Darwin's illness give him the patience to undertake his lifelong studies on nature's minutiae? If not, it's hard to know what else could have transformed the energetic young Darwin of the *Beagle* voyage into an uncannily patient observer and perpetual valetudinarian.

Inactivity and infinite patience do not suit all engagements with the natural world, and the management of wild tigers is a pursuit that involves more action than most of us could muster. Just 3,200 tigers now survive in the wild—down from tens of thousands a few decades ago, and those few survivors are increasingly harried. In Russia, around four hundred Siberian tigers remain, and whenever a forest crime involving attacks by tigers is reported, a law enforcement group known as Inspection Tiger swings into action. Based in Primorye in the Russian far east, in early December 1997 its group leader was Yuri Trush—a man destined to have an encounter with a tiger that remains without parallel.

Albert Watson

A Spanish snail, photographed by Albert Watson during a fashion shoot for Stern *magazine, 1986; from Watson's book* UFO: Unified Fashion Objectives*, which has just been published by PQ Blackwell*

John Vaillant, who tells the astonishing story of what happened in *The Tiger*, describes Trush as a 6'2" "Alpha male wilderness cop" with eyes "colored…like the semiprecious stone tiger's eye." Trush is one tough man. He taught hand-to-hand combat in the Soviet military and can break bricks with his bare knuckles. He said, of a miscreant he was pursuing, "He knows very well that I am capable of beheading him with my bare hands."

Vaillant brilliantly describes the Primorye region's inhabitants—from the indigenous Nanai, Udeghe, and Orochi peoples to the new immigrants from Russia, many of whom arrived just a generation previously. They are almost invariably dirt-poor, and it was the fate of one such—a man known as

Vladimir Markov—that set Trush on his fatal course.

The Inspection Tiger team had been asked to check Markov's cabin in the backwoods. Driving over snow-covered dirt tracks in a vehicle called a Kung, which sounds like something out of a Mad Max film, they arrived as the sun was low in the sky. The cabin was surrounded by human and tiger prints, and Trush, using a video recorder, followed a trail leading into the forest. As Vaillant puts it:

> The audio picks up a sudden, retching gasp. It is as if he has entered Grendel's den.
>
> The temperature is thirty below zero and yet, here, the snow has been completely melted away. In the middle of this dark circle, presented like some kind of sacrificial offering, is a hand without an arm and a head without a face. Nearby is a long bone, a femur probably, that has been gnawed to a bloodless white.

Then

> there is a sound: a brief, rushing exhale—the kind one would use to extinguish a candle. But there is something different about the volume of air being moved, and the force behind it—something bigger and deeper…. At the same moment, perhaps ten yards ahead, the tip of a low fir branch spontaneously sheds its load of snow.

The tiger, which was guarding its kill, had moved. With the light failing and armed with only a rifle, Trush decided to follow the killer into the forest. But it had vanished into the gloom.

Conflict between tigers and humans is likely to have begun soon after our ancestors wandered out of Africa, some 50,000 years ago. But as we became more settled, the nature of the relationship began to change. Vaillant writes:

> Throughout Korea, Manchuria, and southeast China, tigers were considered both sacred and a scourge. Until around 1930, tigers continued to pose such a risk that, in North Korea, the bulk of offerings made to some Buddhist shrines were prayers for protection from these animals. Nonetheless, tigers were held in high esteem in part because it was believed that they, too, made offerings to heaven.
>
> In the tigers' case, these gifts took the form of the severed heads of their prey, a determination made, presumably, by the beheaded state of many tiger kills. Ordinary people were reluctant to retaliate against a predatory tiger for fear it would take offense, not to mention revenge, and so their day-to-day lives were shaped—and sometimes tyrannized—by efforts to at once avoid and propitiate these marauding gods.

If things got truly desperate for the harried villagers, there was one hope—a sort of bounty-hunting

society known as the Tiger Hunters Guild. Wearing trademark conical blue felt hats, these intrepid Koreans used fourteenth- century-style matchlock rifles to kill the man-eaters. Their guns worked by lighting a wick and waiting for the flame to enter the touch hole, thus requiring a steady nerve and bravery almost beyond imagining.

Incredibly, some have taken it upon themselves to capture tigers alive—"a seemingly lunatic enterprise," according to Vaillant, "which fell out of favor only in the early 1990s." One of the last and most famous tiger catchers was Vladimir Kruglov. Somehow he managed to pin down wild adult tigers with forked tree branches, then hog-tie them and place them in a sack. He is, Vaillant says,

> one of the only human beings in the history of the species to grab wild tigers by the ears repeatedly and live to tell about it. "I have never let anyone else handle the ears," he explained… in 2001. "You know, the ears are her steering wheel. You can turn off her teeth with the ears."

What had made Vladimir Markov a tiger victim? Most of the people in the Primorye region are not worried by tigers, living by the motto "If I don't touch her, she won't touch me." Indeed, Vaillant records that

> such was the stability of human–tiger relations in the Panchelaza [part of the Primorye] that the possibility of a person getting attacked—much less eaten—by a tiger was, literally, laughable—like getting hit by a meteorite.

Trush interviewed people who had met the victim just before his death, including Evgeny Sakirko, whom Markov had visited at his logging camp. "I'd better get home because the dogs will get killed," a nervous Markov had said. He seemed anxious, according to Sakirko, and was unwilling to stay and eat despite the fact that hot food was being served. More evidence of Markov's disturbed state of mind came from the old Nanai hunter Ivan Dunkai—a person in whom Markov confided. The night before the attack, Markov had visited Dunkai and said, "There's a tiger about." Dunkai asked where, and Markov replied that it was hiding. "Come now, and we'll go hunting together," he had said. "How can we go hunting at night?" Dunkai asked, before offering Markov food. But Markov said that he "had to go now!" Strangely, after he trudged off into the gloom, his hunting dog turned up at Dunkai's cabin. "A dog usually stays with its master, and that one was a hunting dog," Dunkai noted.

Markov's closest neighbor was a hermit known as Kopchony (Smokey). He lived in a hole in the ground just a mile from Markov's cabin, and saw tigers regularly. He related:

> "Once, I was walking on the road and noticed something up ahead. I came closer, and there she was—her paw big like *that*." He put his hands up to frame his face. "She had stood there for a long while, and I said to her, 'You have been waiting for me for quite some time, haven't you? You noticed me from far away.'"

This extraordinary man clearly had a peaceful relationship with tigers. When asked if he had ever discussed Markov's death with Dunkai, he said, "No, we never talked about it because he knew about it without me telling him about it, and I knew about it without him telling me, so what are we going to talk about?"

When Trush returned to Markov's cabin to investigate further, he discovered that the tiger had stayed for several days, destroying everything that bore Markov's scent—splintering his ax handle, destroying his pots, and tearing apart his washstand and outhouse. As Trush and his team put the evidence together, "they came to understand that this tiger was not hunting for animals, or even for humans; he was hunting for Markov." One wildlife officer thought he knew why:

> "I knew that he was catching tiger cubs," said [Yevgeny] Smirnov. "He ate the meat and sold the skins. I was trying to hunt him down myself. If it weren't for the tiger, I'd have gotten him sooner or later. The tiger beat me to it."

The village of Sobolonye, where Markov's family lived, had been terrorized by the killing. Most people simply refused to enter the forest until the man-eater was caught. But Andrei Pochepnya had laid a trapline for fur-bearing creatures. A young man just back from the army, he was being badgered by his parents to get a job. So he began his rounds. The tiger was less than a mile away and had already detected his presence. Breaking into a disused shelter, it had taken a mattress, dragging it fifty yards across a frozen river and placing it under a spruce tree:

> When Pochepnya arrived, as the tiger somehow knew he would, it would have been around two in the afternoon. Hunters are vigilant of necessity, and a four-hundred-pound tiger sitting sphinxlike on a mattress is hard to miss. But Pochepnya was not aware of the tiger until he launched himself off his bed from ten yards away.

When, days later, his father and friends arrived on the scene, they found very little blood, and Pochepnya was nowhere to be seen. Only his rifle, still loaded, lay near the mattress. The gun had misfired, but when a member of the search party reloaded it with the same bullet and pulled the trigger, it fired perfectly. Throwing the unreliable weapon into the river, his father went to look for his son:

> What Alexander Pochepnya found is something no parent is equipped to see. Fifty yards into the snowy forest lay a heap of blood- blackened clothing in a circle of exposed earth. It looked more like a case of spontaneous combustion than an animal attack. There was nothing left but shredded cloth and empty boots.

Pondering the scene, Vaillant wonders what happens to those so eaten:

> If the body journeys through the viscera of an animal—if its substance and essence *become* that animal—what happens to the soul?

The reputation of Trush and his Inspection Tiger team was now on the line. They had to find and kill the man-eater. Reading "the White Book," as hunters refer to tracks in snow, they could easily believe that the tiger had somehow influenced Pochepnya's mind, getting him to walk directly toward his death, while it remained unseen, yet in full view.

The Inspection Tiger team had no alternative but to track the man-eater on foot. It was now nearly the shortest day of the year, and the tiger's tracks were heading directly toward the terrified village of Sobolonye. Trush and his men caught up with the creature on a dirt road around ten miles out of town. It was a brilliantly sunny day, and the clearing the tiger lay in looked like it couldn't conceal a rabbit. Nothing could be seen. Then the clearing exploded. "The first impact of a tiger attack does not come from the tiger itself, but from the roar, which…has the effect of separating you from yourself," writes Vaillant.

The next three seconds would change forever the life of a man and a man-eater, but to reveal the climax would do a profound disservice to all those who will surely read this extraordinary book. It is a brilliantly told tale of man and nature, and if you find your heart beating rather too fast at its end, as I did, you may wish to turn to the equally brilliant *Sound of a Wild Snail Eating*, which is sure to provide an antidote.

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