

"Fortune Presents Gifts Not According To The Book", goes the _Dead_Can_Dance_ song title. The class on bats, that I attended on October 7, 1995, demonstrated the truth behind those words.

I took this UC Santa Cruz Extension session accompanied by a woman who is an enthusiastic participant in the "goth" subculture, whose members believe in the power and beauty of a life that dwells in darkness. Many are vampire fans. In black clothes, sepulchral makeup and two-centimeter fangs, my friend conjures up all the stereotypes bat lovers must fight; however, Kathryn is an eager naturalist who knows and likes the real animals. She has bat books and bat bumperstickers, bat brooches and bat houses, belongs to Bat Conservation International, and so on to the point of, er, ... battiness. She wore black for the day, but no cosmetics or canines, since the occasion was not ... black tie. I am no goth, but I do own a black shirt, black jeans, and much silver jewelry -- which tarnishes black, so I dressed to match with all the zeal my black heart could muster.

How silly we looked when we reached the classroom at UCSC Arboretum: No local bats are black; many North American species are colorful. But I am getting ahead of myself.

California bat conservationist Patricia Winters gave a half-day lecture, slide show, and chat on that maligned and misunderstood order of mammals, _Chiroptera_, the bats. I knew the basics: Bats are the non-primates most closely related to humans. They are enormously beneficial -- an insectivorous bat, like the local kinds, eats its weight in insects every night; large colonies, of tens of millions, devour thousands of tons of bugs per week. Bats are vital parts of nature, tiny top predators integrally involved in the web of life, yet these gentle creatures respond affectionately to humans who rehabilitate or maintain them. Many bat species are declining, in serious danger of immediate extinction, and it is all our fault.

Winters debunked several persistent bat myths. They certainly do not get stuck in your hair, she said with a regretful laugh, for if they did, bat biologists would have a much easier time capturing specimens. They don't attack humans; bats fly close to your head to catch mosquitoes drawn to carbon dioxide in your breath.

She talked about rabies. In general, any wild animal sick enough to capture is too sick to handle safely, and in northern California, eight percent of sick bats, found grounded and unable to fly, are rabid. Fortunately, rabid bats do not turn furious and attack other creatures. The last human death from bat rabies in California, forty years ago, occurred when some fool forced open the jaws of an ailing bat, got bitten, and skipped rabies shots.

Yet most bats are not sick. In northern California, about one in a thousand carries rabies, though the number is five times higher in the far southern part of the state. There has never been a bat colony found in which the incidence of rabid bats was much higher -- whole colonies of rabid bats are myth. Perhaps bat immune systems do better than ours at fending off the disease, so most do not get it. Finally, rabies in other animals does not peak near large bat colonies; thus bats are not a vector for rabies to reach other creatures.

Bats are highly social. Many species form matriarchies where daughters stay with mothers for life -- and some live forty years. Social organization may transcend families; thus when colonies go foraging and leave infants behind, a non-lactating female may stay home to retrieve babies who fall from their perches. Orphaned colonial bats are adopted and reared by mothers who have lost their young. Bat mothers teach babies to fly. Aged bats may serve as repositories of special knowledge for the community; perhaps it is they who can find good nesting and hibernating spots, or know where to forage for insects in different seasons and conditions.

Though bat habitats decline with human expansion, deliberate efforts to provide nest space do not always work. Bat houses sold in nature stores are rarely occupied. Try tar paper loosely tacked high on the south wall of a house, said Winters.

But there is one final secret, least known and most worth knowing: Bats are adorable! They rank with three-day kittens for terminal cuteness. They induce baby talk in sane adult humans. When Winters brought out her house guests, we all oohed and ogled and made kissy faces, to the extent permitted by the serious intellectual nature of our scholarly interest in biology.

The furry flyers had distinct personalities. Big Brown Bat "Trinket" happily crawled down inside mom's sweat shirt, but chirped jealously when she handled another bat. Pallid Bat "Jennifer" was much mellower, and conspecific "Smoky" climbed to the top screen of his carrier and begged for attention. These two were colored like Siamese cats, and seemed as alert and curious. Hoary Bat "Truffles" grabbed carrier padding with strong teeth and sought not to be extracted. This lovely creature resembled a frosted leaf on an autumn morn. Mexican Freetailed Bat "Smidgen" was scared of heights! "Jennifer" and "Princess Tiffany", tiny members of two *Myotis* species, completed the guest roster.

We ate our evening meal while the bats ate theirs. Winters fed them live mealworms -- bat junk food: They required vitamins, as well. But since mealworms eat just about anything, she had merely given them vitamins as a last meal.

A stroll outside after dusk revealed few bats. We forced the underbrush and walked shadowed trails through thick cover on the rolling Arboretum grounds. We found open water and flying insects, but saw only three or four flitting shapes, seeking dinner in the dark. Winters speculated that these *Myotis* bats had eaten so many local insects that it was better to forage elsewhere, and commented that Santa Cruz retained enough good bat habitat to make it difficult to zero in on them. So they remained elusive and undetected, hidden in the concealing gloom.

Thus class ended early. We were about last out, driving slowly along the short dirt road back to the highway, enjoying the night, watching our headlights bore constricted bright tunnels through the pale glow of moonrise. Our site at the edge of campus adjoined scrub and forest, but was less than 50 meters from a well-traveled road, and only 300 meters from houses. Still, even so close to civilization, we kept our eyes

peeled for furtive critters in the underbrush. The well-watered, heavily planted grounds were surely a reliable place to seek small game, or even larger animals, such as deer. Yet all we saw was a kitty cat, bounding out of the shrubs to cross ten meters ahead of us, vanishing phantom-like almost before we noticed it.

I shook my head and stopped, rolling down the window to stare in puzzlement into the brush, playing back the action in my mind, trying to make sense of what I had just seen. That had been a big kitty cat. Kathryn had seen it too, and the same reasoning ran through both our minds.

The cat was 60 or 70 centimeters from chest to hindquarters, with a proportionately longer muzzle than a house cat's. It was bobcat size, yet no bobcat would have a sinuous tail or small ears. Most discordantly, it did not move like a house cat; it bounded like a larger animal. The long-tailed, blocky body and large-animal gait were so compelling that we each thought absurdly of a leopard. But it was far too small, with no spots, and colored like sand, perhaps lighter on the belly. No adult California wildlife matches that description, certainly none on the central coast.

But how about a juvenile, born the spring just past? Suddenly things fell into place. Still only half believing, we turned to one another in cautious awe and wonder. Kathryn spoke first.

"Could that have been a mountain lion?"

Yes. As a matter of fact, it could. It could indeed.

And if mom was out there too, then while we were wistfully contemplating bats, very likely she was wistfully contemplating us. We decided to investigate no further, in respect for a mother's love, and for the harsh realities of feeding a growing kid. I rolled my window back to the top.

So as the full moon rode higher in the sky, we drove home through the night, souls full of the beauty and power of life that dwells in darkness, lastingly grateful for the gifts of fortune, and more truly caught up in nature and in the web of life than we had ever expected, or surmised.

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