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Bats at Last!

An artificial bat cave proves its worth

Robert Locke

Vindication feels very good,” says J. David Bamberger. “Some people were starting to call this ‘Bamberger’s Folly.’ Now, finally, I’m vindicated.” Overhead, tens of thousands of Mexican free-tailed bats – perhaps as many as 200,000 – were streaming out of the biggest artificial bat cave on Earth.

Bamberger had waited five years to see these dense columns of freetails (*Tadarida brasiliensis*). A few hundred bats had moved in within three years of completing the cave, with several thousand arriving last year. But this was the great leap that fulfills a dream and perhaps proves a key part of the conservation philosophy into which he has poured time, money, and energy for decades. “I wanted to demonstrate that manmade habitat can mitigate manmade damage.”

For 34 years, he has practiced a singular vision of conservation, of stewardship, at the Central Texas ranch he named Selah. A founder of the Church’s Chicken chain and former BCI trustee, Bamberger says he sought out the most worthless and undesirable property in the semiarid region.

Carefully but relentlessly, he cleared the dense tangles of cedars and other plants that had invaded in the wake of overgrazing. He planted great fields of grasses like those that greeted the first settlers in the Texas Hill Country more than a century earlier. Soon natural springs reappeared, dry streambeds became year-round creeks, and ponds filled. Wildlife is abundant and diverse.

Selah, Bamberger Ranch Preserve, now spreading over 5,500 acres (22.25 square kilometers) of grasslands and wooded canyons and protected through a nonprofit foundation, is a working cattle ranch. It is also an educational center and a demonstration project for land restoration that Bamberger hopes will become a model for other landowners and conservationists.

The artificial cave is a centerpiece. Bamberger became hooked on bats more than 15 years ago, when he stood at BCI’s Bracken Cave and watched in awe as 20 million freetails circled up from the depths and spread their columns across the sky. “This,” he says as Selah’s bats stream overhead, “is like a mini-Bracken.”

The cave, called the Chiroptorium, was built in 1997-98 at a cost of about \$170,000. (Bamberger estimates it could be duplicated now for about \$50,000 by avoiding the difficult learning process and a few missteps.) He worked with BCI Founder Merlin Tuttle to design the original plan, then with other BCI staff and experts from around the world as he waited for bats to arrive. (See *BATS*, Winter 1997.)

The unique structure consists of two domes and a connecting arch that forms a giant toadstool-like enclosure between them. The cave covers 3,000 square feet (279 square meters), and its walls offer roughly 8,000 square feet (743 square meters) of roosting space



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– enough, he figures, for at least a million bats. The domes were formed from 20 tons of steel bars bent to shape and covered with gunite, the concrete used for swimming pools. It looked in 1998 like a modernist sculpture nestled into the scenic canyon. Now, covered with soil and native grasses except for the sculpted-concrete entrance, it seems at home in its canyon as part of the landscape.

The wait was frustrating. “The bottom line is that Mother Nature’s going to decide whether the bats are going to come or not. But I’ve been waiting all this time.”

Even after numbers swelled to several thousand last year, “Those bats had cost me about \$10,000 apiece,” says the ebullient conservationist. “Now I’m getting ’em down to about a nickel.”

One evening in mid-August, he drove out to check the cave and, “My God, they were just pouring out! This thing just went boom. It blows my mind.”

Why so many bats decided to move in all at once remains a bit of a mystery. But, Tuttle says, the timing is not surprising, since mid-August is when Bracken Cave becomes least comfortable for freetail bats because of accumulated heat and gases. He also notes that the largest artificial roosts typically require about three years to begin attracting bats, then the numbers zoom upward over the next several years.

During my visit in late September, the Chiroptorium bats emerged in two waves. The freetail bats form their long, snaking column in twilight. With darkness comes another wave, this one of individual bats that dart much closer to the ground as they head toward a nearby wood, occasionally streaking among a handful of onlookers en route. Mostly, their presence is revealed by individual calls on a bat detector. This second group, Bamberger says, comprises about 7,000 bats tentatively identified as cave myotis (*Myotis velifer*) that appear to occupy a smaller roosting chamber at the rear of the cave, an area that was designed with this species in mind.

With winter coming, the freetail bats soon will be leaving their artificial cave for Mexico. Bamberger will have to wait for another summer to see if numbers continue to grow, but he remains optimistic – as always. His vision of “the world’s largest manmade habitat designed specifically for free-will use of wild animals” is validated. Now, he says, “other minds can come up with other solutions” to apply the concept in new ways and places.

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